2017 Cancer Incidence and Mortality in North Carolina

State Center for Health Statistics

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Contributing Editors

Sohrab Ali, MPH, MIS, M.A.

Soundarya Radhakrishnan, M.S.

STATE OF NORTH CAROLINA

Roy Cooper, Governor

DEPARTMENT OF HEALTH AND HUMAN SERVICES

Mandy Cohen, M.D., MPH, Secretary

DIVISION OF PUBLIC HEALTH

Mark T. Benton, Assistant Secretary for Public Health

STATE CENTER FOR HEALTH STATISTICS

Delton Atkinson, Interim Director

CENTRAL CANCER REGISTRY

Chandrika Rao, Ph.D., Director

www.ncdhhs.gov

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Introduction

Cancer is a group of diseases in which there is an uncontrolled growth of abnormal cells in a part of the body. One out of every two men and one out of every three women in the United States will develop cancer during their lifetimes.[1] In 2017, cancer was the leading cause of death in North Carolina.[2] In order to determine the effect cancer has on the state's population, the North Carolina Central Cancer Registry (CCR) collects, compiles and tabulates data regarding the occurrence of cancer and reports the deaths due to cancer within the state. This report is a summary of the incidence and mortality due to cancer with the most complete and recent data the CCR has available.

Background

The CCR, located in the State Center for Health Statistics (SCHS), was established in 1986. The CCR operates under the authority granted in North Carolina General Statute 130A-208.[3] Legislation declaring cancer reporting to be mandatory in North Carolina became effective in 1947. Authorized funding for establishing a registry, however, was not appropriated until 1986. Between 1986 and 1989, only 50-60 percent of the cases were reported each year. The first year for which relatively complete statewide reporting was achieved was 1990. In 1999, new legislation was passed that requires every healthcare provider that detects, diagnoses or treats cancer cases to report all cases to the CCR.[3]

On a national level, the CCR reports data to the North American Association of Central Cancer Registries (NAACCR)[4] and the Centers for Disease Control and Prevention National Program of Cancer Registries (NPCR)[5]. Both organizations annually review the data the CCR submits, for completeness, quality and timeliness. Completeness is the percentage of cases reported. Having high quality data ensures that there are not duplicate records per case and that certain data variables are accurate and complete. In order to meet the timeliness requirement, the data must be submitted within 23 months of the completion of the diagnosis year under review. For the last eleven years, the CCR has achieved the NAACCR Gold Standard for Registry Certification. This certification is the highest NAACCR standard awarded for completeness, quality and timeliness of data. The CCR continues to meet the requirements for NPCR in order to receive funding and to have data publicized nationally.

Purpose

As a population-based registry, the CCR collects, analyzes and disseminates information on the occurrence of cancer in North Carolina. The data collected include patient demographics (e.g., race, gender and age) and medical information on each cancer diagnosis (e.g., primary site, morphology, stage and first course of treatment). This information is used to improve cancer treatment and identify groups that have higher incidence and mortality from cancer.[6] The CCR preserves the confidentiality of information obtained for medical, educational, research and statistical purposes. No identifying information regarding patients, hospitals or physicians is released except under the conditions specified in General Statute and North Carolina Administrative Code.[3]

2017 Cancer Incidence and Mortality in North Carolina is the 24nd annual report of the CCR. The contents of this report represent a summary of the information collected on cancer diagnoses and deaths in 2017. The information includes incidence and mortality counts and rates for all cancers

by county, race, gender and age. The primary goal of this report is to provide cancer data to healthcare planners, researchers and the general public.

Data Sources and Collection

Healthcare providers who detect, diagnose and treat cancer report cases to the CCR. The CCR receives data on death due to cancer from the Vital Records (VR) Branch, also located in the SCHS. The data are coded according to standard procedures and guidelines.

Cancer Incidence

Cancer incidence is the number of newly diagnosed cancer cases, not including recurrences, during a particular time period within a certain population. With each cancer diagnosis or treatment, the healthcare providers report the case to the CCR within six months. The CCR releases data approximately two years after the end of the diagnosis year, due to reporting delay, consolidation of records and cleaning of files.

From each case, the CCR collects patient demographics and medical information on the cancer diagnosis. Some demographics the CCR receives regarding an individual diagnosed with cancer include race, ethnicity, gender, age and residence. In addition, the CCR gathers data such as the first location of the cancer (primary site), the form of cancer (morphology), tumor size and the spread of the cancer (stage). Data regarding first course of treatment and vital status are also collected.

The CCR receives the majority of the cancer incidence data from healthcare facilities (hospitals, cancer centers, dermatology centers, urology centers and surgical oncology centers). Incidence data also come from physician offices, pathology reports, interstate data exchange, nursing facilities and death clearance cases. At present, there are 120 hospitals which routinely diagnose and treat cancer patients. Of these, 97 have tumor registries where the data are abstracted and submitted to the CCR, 1 men's federal prison, 1 men's state prison, 1 women's state prison, 4 Veterans Affairs (VA) hospitals and 4 Department of Defense (DoD) facilities. Also, there are 188 physician offices and clinics, as well as 58 pathology laboratories in North Carolina reporting to the CCR. Death Clearance is a process of linking the death certificates with the cancer incidence data to identify cancer cases that may have been missed through regular reporting. For 2017 diagnosis year, the CCR received 88,553 reports from over 271 facilities .

Cancer Mortality

Cancer mortality is the number of deaths due to cancer during a specified time period within a certain population. Death certificates are filed to a county health director within five days. The death certificate is then passed on to VR on the fifth day of the following month.[3]

Once a year, VR provides the CCR with data on the deceased whose primary cause of death is cancer. This information includes demographics on the deceased including race, ethnicity, gender, age and residence. In addition to demographics, a primary cause of death and date of death are also collected.

Differences in Collecting Incidence and Mortality

For many studies, the CCR examines both incidence and mortality. Therefore, it is important to note differences in obtaining incidence data and mortality data. These differences include, but are not limited to, timeliness in reporting (both in state and out-of-state cases) and case finding.
There is a difference in the timeliness of reporting incidence and mortality data of cases reported in the state for North Carolina residents. For incidence data, the healthcare facility is supposed to report the case to the CCR within six months. However, with mortality data, a report of each death is submitted to the VR within two months.

Some people living near neighboring states go outside North Carolina for health care. Also, people may get diagnosed with or die of cancer outside of the state. North Carolina has an exchange agreement for cancer incidence data with 37 states and Washington, D.C., including its border states of Virginia, Tennessee and South Carolina. In addition, North Carolina has an exchange agreement with the other 49 states, as well as with Washington, D.C., and United States territories, for exchanging death certificates. Typically, incidence data are exchanged twice a year while mortality data, monitored by the National Center for Health Statistics (NCHS), are exchanged between states within two months of a death. However, even with these exchange agreements in place, delays or omissions can occur in the interchange of incidence and mortality records.

Although new cancer cases are required by law to be reported to the CCR, there are many that are not. Cases diagnosed in small hospitals that do not have a cancer registry may be under reported. Physicians associated with a large hospital will often report cases via a hospital registrar, but those not affiliated with a hospital may not have ample staff to report cases to the CCR. In the last few years, more cases are being diagnosed and treated in physician offices or surgical oncology centers and may never be referred to an oncologist nor be reported. The CCR has improved the completeness of reporting by recruiting physician offices and pathology laboratories as well as sending staff to smaller facilities to collect the required data. Despite the efforts of the CCR, incidence data are considered to be incomplete. On the other hand, death data are regarded as complete. Therefore, there may appear to be an excess of deaths compared to the number of cases for some cancers in rural counties.

Cancer Classification

The CCR receives an abstract of each medical record from a reporting facility. Each abstract contains specific medical information about the cancer. The cancers are categorized using codes according to the *International Classification of Diseases for Oncology, Third Edition.*[7] Each code is comprised of two pieces: topography and morphology. The topography code tells where the tumor began (primary site). The morphology code tells the type of cell (histology), the way it behaves within the body (behavior) and supplementary information about the tumor (grade). Care must be taken when coding lymphomas and leukemia.

The medical record also contains data regarding the cancer stage. The stage at diagnosis indicates how far the cancer has spread when it is first diagnosed. Knowing the extent of the cancer is important in treatment and prognosis. The CCR commonly uses National Cancer Institute's Surveillance, Epidemiology, and End Results Program[8] definitions for staging and groups cancers as in situ, local, regional, distant and unknown.

In the data collected by the CCR, only malignant tumors are included with one exception. Data on benign brain and central nervous system tumors are also reported to the CCR. Only malignant tumors are included in this report. In situ cases are generally reportable to the CCR. However, these tumors, with the exception of in situ breast and bladder cases, are not used in cancer surveillance or in cancer incidence statistics. Data on basal and squamous cell skin cancers are not collected by the CCR unless they have spread to tissue beyond the original site. Malignant melanoma may occur at many different body sites; however, this report focuses on melanoma of the skin.

Statistical Methods

Populations not only vary in size, but also in their racial, gender and age breakups. Thus, the counts of cancer incidence and mortality have limitations when comparisons are needed.

Rates are used to show the risk of an event occurring in a population and the CCR presents rates per 100,000 persons. The CCR calculates rates for both incidence and mortality data. A crude rate is found by dividing the number of events (e.g., cancer cases or deaths) for a population of interest in a specified time period by the population of interest at risk during the same time period. This ratio is then multiplied by 100,000 to express it as a rate per 100,000 persons. A crude rate can be expressed as

$$crude\,rate = \frac{count\ of\ events\ for\ a\ population\ of\ interest}{population\ of\ interest\ at\ risk} \times 100{,}000.$$

Crude incidence and mortality rates for 2017 used the population estimates obtained from the NCHS. Incidence reports published by the CCR prior to 2006 were calculated using the State Demographer's population estimates. Hence, rates from reports prior to 2006 are not comparable to rates in this report.

Age-Specific Rates

An age-specific rate is an example of a crude rate where the population of interest is a specific age group. For age group *i*, an age-specific rate can be calculated as

$$age\text{-}specific\ rate_i = \frac{count\ of\ events\ for\ age\ group_i}{population\ of\ age\ group_i\ at\ risk} \times 100{,}000.$$

A typical way to divide age groups is in five-year increments (0-4, 5-9, …, 80-84, 85+). In this report, the ages are grouped as 0 to 19 (pediatrics), 20 to 44 (young adults), 45 to 64 (middle-aged adults) and 65 and older (senior adults).

Age-specific rates are used to examine the burden cancer has on a particular age group and to determine the need for services for a given population. In addition, they can be used to compare different population groups of the same age and notice the effect that cancer has on the various populations. Within a population, age-specific rates can be used to examine how cancer burden differs among age groups.

Age-Adjusted Rates

The occurrence of an event may vary with age, and the age structure of a population can vary as well. Therefore, age-specific rates are not always useful for comparisons and as a result must be adjusted to account for these differences. An age-adjusted rate is a weighted average of the age-

specific rates expressed as a rate per 100,000 persons. Age-adjusted rates should be used only if the same standard population is used for computing weights. The standard population provides the proportion of the population in specific age groups and includes information regarding age, but not race, sex or geographic location. The standard population the CCR uses is the 2000 United States Census population.

To calculate age-adjusted rates, multiply each age-specific rate by the proportion of individuals in that age group in the standard population. For example, for age group *i*,

$$weighted\ rate_i = age\text{-}specific\ rate_i \times \frac{standard\ population\ in\ age\ group_i}{total\ standard\ population}.$$

The age-adjusted rate is the sum of all the weighted age-specific rates. For *n* age groups the age adjusted rate is

$$age\text{-}adjusted\ rate = weighted\ rate_1 + weighted\ rate_2 + \cdots + weighted\ rate_n.$$

An age-adjusted rate allows comparison between populations of different age groups, time periods and/or geographic areas. Age-adjusting ensures that discrepancies in rates of various populations are not a result of differences in age distributions.

Gender-Specific Rates

In addition to computing rates by age, rates can be computed by gender. For both incidence and mortality, gender data are collected by the CCR and VR, respectively. Gender-specific rates are used for comparison between different population groups of the same gender and to examine how cancer tendencies differ between males and females. Gender-specific rates are also used when calculating rates that only affect males (e.g., prostate and testes) or females (e.g., ovary and cervix).

Race-Specific Rates

Rates can also be calculated by race. Race-specific rates are used for comparison between different population groups of the race and to examine how the cancer burden varies between racial groups.

Both race and Hispanic ethnicity are collected by the CCR. Race information can be classified as one of the following: white, black, Asian/Pacific Islander, American Indian and other. Although the CCR has five race fields to account for people who are multi-racial, only the primary race is used. Often the CCR reports rates for whites and minorities. Minorities are defined to be blacks, Asian/Pacific Islanders, American Indians and others. To assist in identifying Hispanic ethnicity, the CCR uses the NAACCR Hispanic Identification Algorithm (NHIA). This algorithm uses name, birthplace, gender and race to determine Hispanic ethnicity.[9] Thus, the CCR can report rates on white non-Hispanics, black non-Hispanics, other races non-Hispanics and Hispanics.

Reliability of Rates

Precautions should always be taken when comparing rates. Rates are not a measure of actual risk. They are used to compare cancer burden between time periods, age groups, gender groups and racial groups. Both the size of the numbers and the characteristics of the population are important indicators of the real value of the rate. Rates based on a small number of cases or for sparsely populated geographic areas should be viewed with caution. Small fluctuations can lead to drastic changes. Therefore, sometimes it is more appropriate to look at the number of cases instead of the rates. When the number of events is small, multiple-year summary rates will provide a much better

measurement of risk. Expanding the period of time studied enlarges the absolute numbers and adds more credence to a statement regarding a rate.[10]

Limitations of Data

When comparing rates between two populations, the user should note that age structure is the only difference between the populations for which rates have been adjusted. Since county demographics can vary considerably, one needs to be careful not to misinterpret rates. Racial composition, for example, can have a marked influence on the patterns of cancer incidence and mortality. Under-reporting, due to out-of-state cases or poor case-finding in some non-hospital situations, also needs to be taken into account when making comparisons of cancer data.

Summary of 2017 Cancer Data

The CCR collected approximately 58,939 cases of newly diagnosed cancers and 19,474 deaths due to cancer in 2017 (Table 1). Female breast, prostate, lung and bronchus, and colon and rectum cancers were the leading diagnosed cancers among all gender and races combined. The CCR often refers to these as the top four cancers (Table 2).

Cancer risk is strongly associated with lifestyle and behavior. Dietary patterns, alcohol use, and sexual and reproductive behaviors, which vary by demographic groups, are risk factors of cancer. Cancer is diagnosed more often among older North Carolinians than younger ones. In general, males have a higher burden of cancer compared with females. Overall, non-Hispanic whites, non-Hispanic blacks and non-Hispanic other races had higher incidence than Hispanics while non-Hispanic whites and non-Hispanic blacks had higher mortality rates when compared with non-Hispanic other races and Hispanics. Lung and bronchus cancer was the most common cause of death due to cancer.

Age

More adults are directly affected by cancer than children. Senior adults (ages 65 and older) made up about 16 percent of the population in 2017,[11] but accounted for over 55 percent of newly diagnosed cancer cases and two-thirds of deaths due to cancer. Children (ages 0 to 19) were the third largest age group but made up less than 1 percent of both newly diagnosed cancers and deaths due to cancer (Chart 1). In 2017, the median age at which cancer was diagnosed was 66, but people ranged in age from 2 to 106. People who died of cancer ranged in age from 1 to 106 with the median age being 71. The median age of incidence and mortality for each age group as well as the percentage of cases and deaths the top four cancers comprise are shown below. In both middle-aged and senior adults, the top four cancers combined accounted for more than half of the cancer cases and almost half of cancer deaths (Chart 2,4).

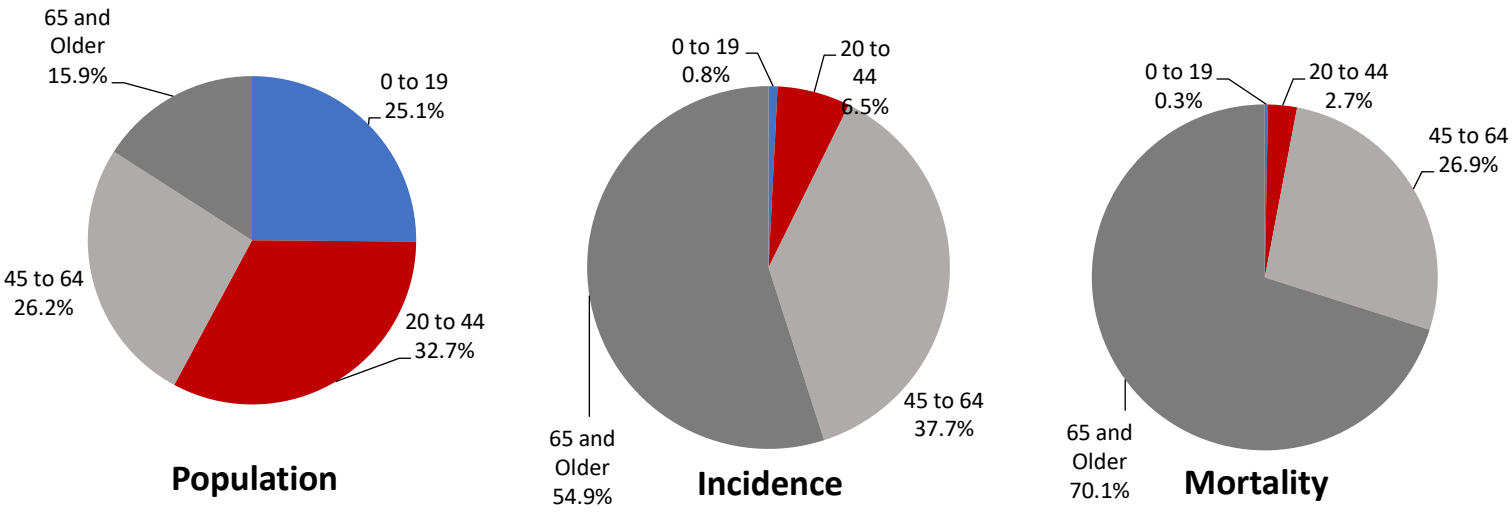
Children had a very different pattern of cancer than adults. Leukemia, Hodgkin Disease, Soft Tissue, Brain and Endocrine cancers accounted for 51 percent of cancers diagnosed in people under age 20. Leukemia, Bone, Soft Tissue, Brain and Endocrine cancers made up over 80 percent of pediatric cancer deaths (Tables 5 and 6).

Young adults (ages 20 to 44) had a different pattern of cancer than children. In this age group, there was a greater incidence of female breast, endocrine, melanoma (skin) and colon and rectum cancers than in the pediatric age group. On the other hand, the proportion of bone cancer was lower. Female breast cancer accounted for over 14 percent of all cancer deaths and had the highest

mortality rate within this age group. The mortality rate for female breast cancer was more than doubled the next highest cancer rate, colon and rectum (Tables 5 and 6).

Cancer patterns were different in middle-aged adults (ages 45 to 64) compared with young adults. In this age group, there was a higher frequency of female breast. The percentage of bone cancer and was lower. The frequency of lung and bronchus cancer deaths was higher for middle-aged adults than young adults (Tables 5 and 6).

Chart 1: 2017 Percentages N.C. Population, Cancer Incidence and Mortality by Age



In senior adults, cancer patterns were similar to middle-aged adults. The incidence of bone and hodgkin disease were lower. Lung and bronchus cancer accounted for more deaths than colon and rectum, female breast and prostate cancers combined (Tables 5 and 6).

Chart 2: 2017 Median Age and Percentage of Top Four Sites for Cancer Incidence and Mortality by Age Group

	Incidence		Mortality	
	Median Age	Top 4 Sites	Median Age	Top 4 Sites
Children (ages 0-19)	11	3.8%	10	3.1%
Young Adults (ages 20 to 44)	38	34.0%	39	39.4%
Middle-Aged Adults (ages 45 to 64)	58	54.4%	59	46.7%
Senior Adults (ages 65 and older)	73	52.5%	76	47.9%

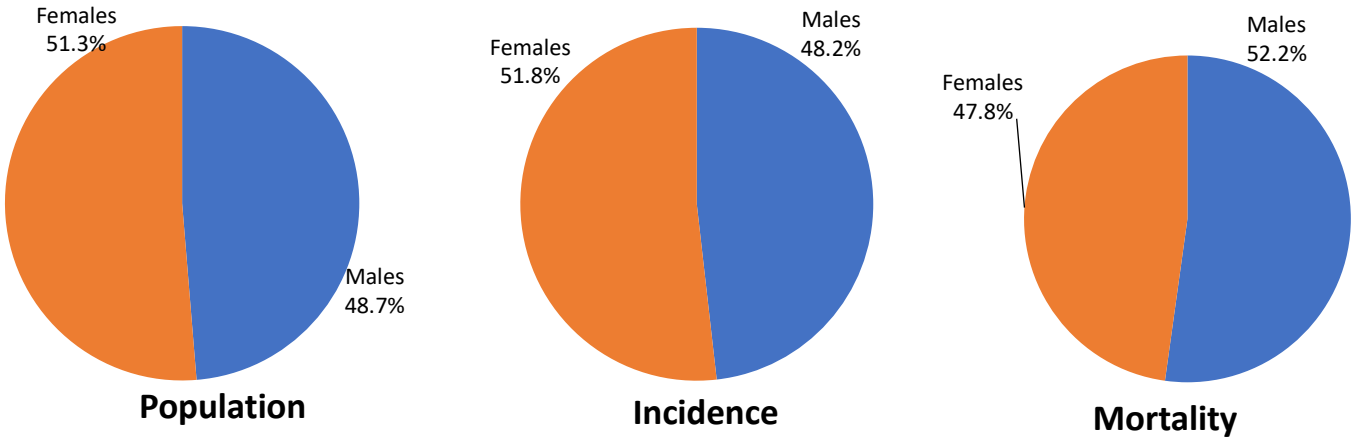
Gender

In 2017, more than 50 percent of the state population was female. While more than half of all cancer cases were diagnosed in females, more than half of deaths due to cancer were in males (Chart 3). The median age of diagnosis for females was slightly younger than males. The top four sites comprised about half of both cancer incidence and mortality (Chart 4).

The most frequently occurring cancers among males were prostate, lung and bronchus, colon and rectum, melanoma and bladder. Lung and bronchus, prostate, colon and rectum, pancreatic and liver cancers were the leading causes of death due to cancer (Table 8).

Among females, the most frequently occurring cancers were breast, lung and bronchus, colon and rectum, uterine and melanoma. Lung and bronchus, breast, colon and rectum, pancreatic and ovarian were the leading causes of death due to cancer (Table 8).

Chart 3: 2017 Percentages of N.C. Population, Cancer Incidence and Mortality by Gender



Differences between genders could provide clues to factors involved in the development of cancer. Esophageal, laryngeal, urinary bladder, liver and oral cavity cancers had a higher frequency among males compared with females. However, females had a higher frequency of endocrine cancer compared with males. In males, about one third of deaths due to cancer came from lung and bronchus cancer, whereas in females, lung and bronchus cancer constituted about one quarter of cancer deaths (Table 7).

Chart 4: 2017 Median Age and Percentage of Top Four Sites for Cancer Incidence and Mortality by Gender

	Incidence		Mortality	
	Median Age	**Top 4 Sites**	**Median Age**	**Top 4 Sites**
Males	67	48.1%	71	46.1%
Females	65	55.1%	71	48.3%

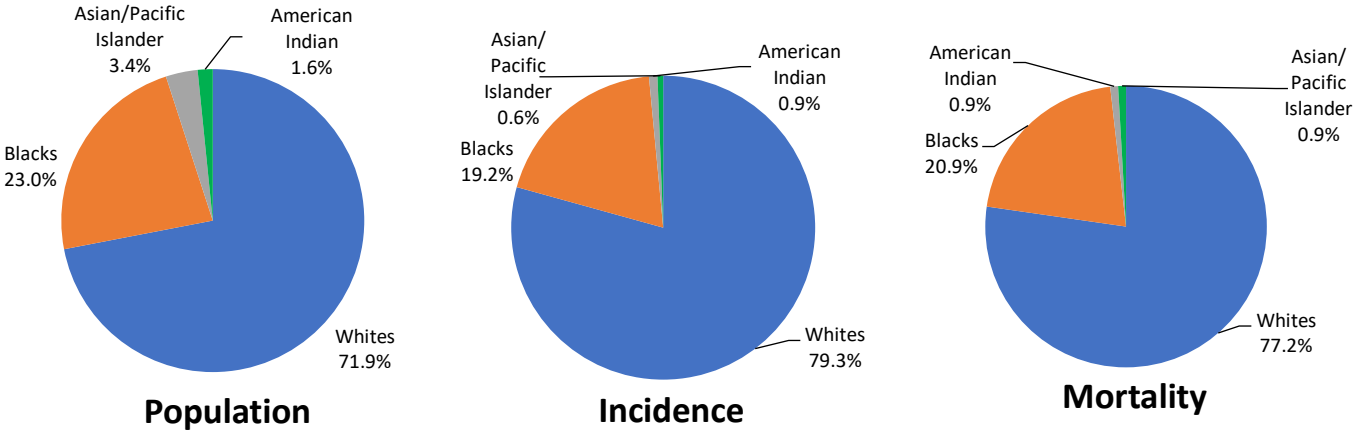
Race and Ethnicity

In 2017, about 72 percent of the North Carolina population was white. Blacks comprised more than one-fifth of the population. About 79 percent of cancer cases and 77 percent of cancer deaths occurred in whites while about 20 percent of cancer cases and 21 percent deaths occurred in blacks (Chart 5). The median age and the percentage the top four cancer sites comprise among all cancers for both incidence and mortality are displayed for all racial ethnic groups (Chart 6). Hispanics had the youngest median age of incidence as well as mortality. About 57 percent of cancer diagnosed in non-Hispanic blacks were from the top four sites.

For non-Hispanic whites, besides the top four cancers, melanoma was the next most frequently diagnosed cancer. Pancreatic cancer was the fifth leading cause of death in this group. The number of lung and bronchus cancer deaths was about 1.5 times as large as the number of deaths due to female breast, pancreatic, and colon and rectum cancers combined (Table 14).

Among non-Hispanic blacks, prostate cancer comprised approximately 16 percent of all diagnosed cancers. Uterine cancer was also among the top five frequently diagnosed cancers for this group. Pancreatic cancer was the fifth leading cause of death among non-Hispanic blacks. The number of lung and bronchus cancer deaths was higher than the number of deaths due to female breast and colon and rectum cancers combined (Table 14).

Chart 5: 2017 Percentages of N.C. Population, Cancer Incidence and Mortality by Race



For non-Hispanic other races, besides the top four cancers, melanoma was another commonly diagnosed cancer. The number of cancer deaths due to liver cancer were higher than those due to colorectal or female breast cancer in this group (Table 14).

For Hispanics, outside of the top four cancers, corpus uteri cancer was the most frequently diagnosed. Lung and bronchus cancer constituted 14 percent of cancer deaths. For other racial and ethnic groups, lung and bronchus cancers made up about 27 percent of cancer deaths. In Hispanics, Colon and Rectum cancer was the fifth leading cause of death due to cancer (Table 14).

Chart 6: 2017 Median Age and Percentage of Top Four Sites for Cancer Incidence and Mortality by Race and Ethnicity

	Incidence		Mortality	
	Median Age	**Top 4 Sites**	**Median Age**	**Top 4 Sites**
Non-Hispanic Whites	67	50.5%	73	47.2%
Non-Hispanic Blacks	64	57.1%	68	47.8%
Non-Hispanic Other Races	63	53.5%	67	46.5%
Hispanics	57	43.7%	65	35.1%

Conclusion

This descriptive report is intended to serve as a reference on cancer incidence and mortality for healthcare planners, researchers and the general public. This publication should not be regarded as a definitive description of the cancer incidence in North Carolina. Although there are important limitations in the use of these data, the observed number of cases and the calculated rates within a county, a gender group, a racial and ethnic group, or an age group have many uses. These uses include planning and evaluating health services at the county and state level and identifying cancer disparities between specific groups. The data provided by the CCR can be used by the Comprehensive Cancer Program in the Division of Public Health and other research organizations for prevention, detection and treatment of cancer.

The editor would like to thank Chandrika Rao, Christian Klaus, Delton Atkinson, and the other members of the CCR staff for their contributions to this report.

Available Cancer Information

North Carolina Central Cancer Registry
www.schs.state.nc.us/units/ccr/ 919-792-5946

North Carolina State Center for Health Statistics
www.schs.state.nc.us 919-733-4728

North Carolina Breast and Cervical Cancer Control Program
http://bcccp.ncdhhs.gov 919-707-5300

North Carolina CCR Rapid Case Ascertainment
http://unclineberger.org/research/core-facilities/rapid-case-ascertainment 919-966-0032
919-792-5925

American Cancer Society
www.cancer.org 1-800-ACS-2345

National Cancer Institute
www.cancer.gov 1-800-4-CANCER

Surveillance Epidemiology, and End Results
http://seer.cancer.gov

Cancer Control P.L.A.N.E.T.
http://cancercontrolplanet.cancer.gov

NCI State Cancer Profiles
http://statecancerprofiles.cancer.gov

National Program of Cancer Registries
www.cdc.gov/cancer/NPCR

North American Association of Central Cancer Registries
www.naaccr.org

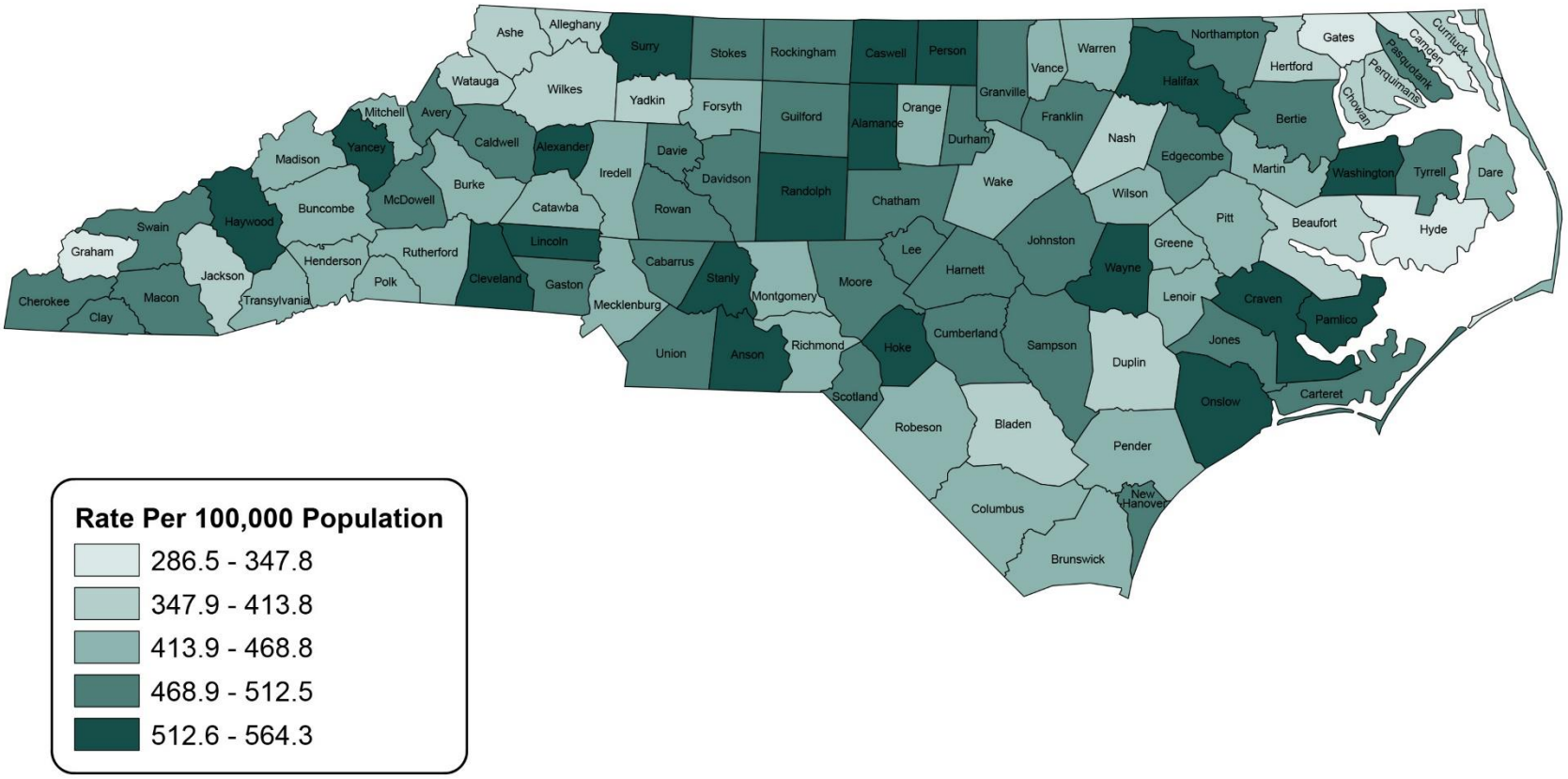
Centers for Disease Control and Prevention
www.cdc.gov

CDC Wonder United States Cancer Statistics
http://wonder.cdc.gov/cancer.html

Association of North Carolina Cancer Registrars
www.ncregistrars.com

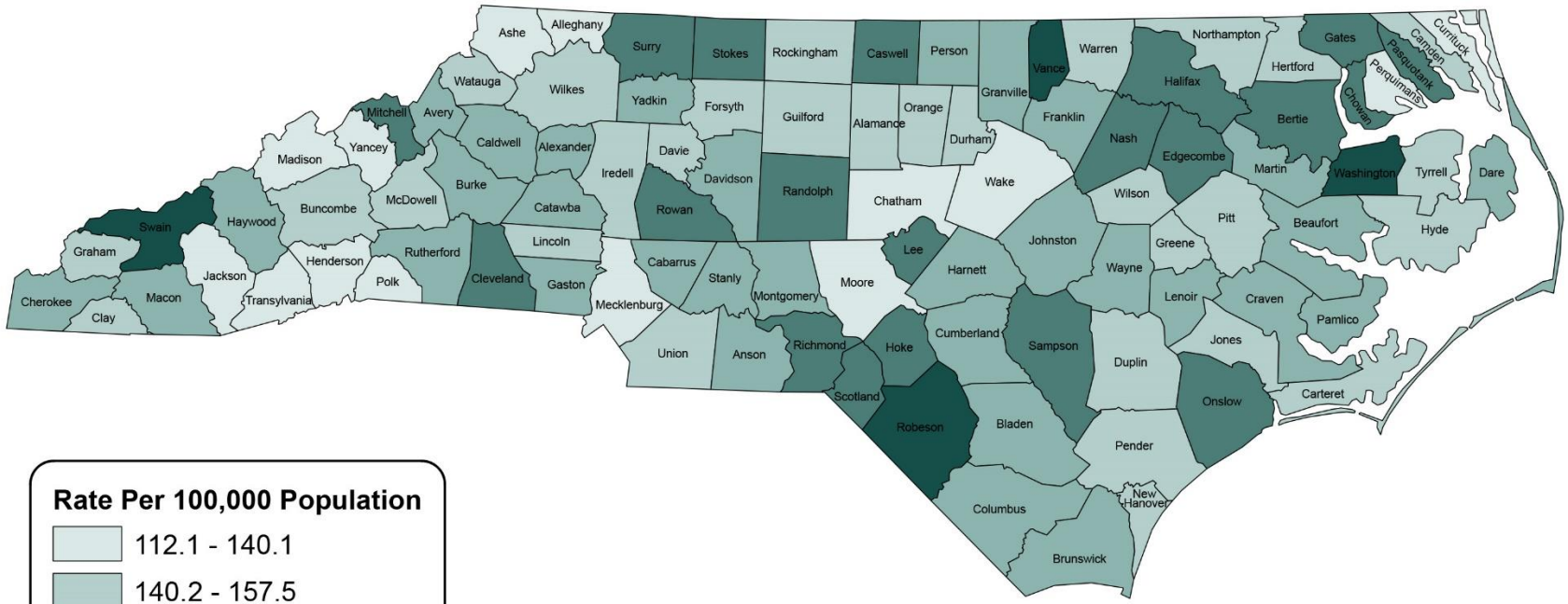
National Cancer Registrars Association
www.ncra-usa.org

Map 1: 2017 North Carolina Cancer Incidence Rates by County



Note: Rates are based on cases reported to the North Carolina Central Cancer Registry and are subject to change as files are updated.

Map 2: 2017 North Carolina Cancer Mortality Rates by County



The rate for Hyde and Tyrrell Counties is based on less than 16 cases, is unstable and should be used with caution.

Note: Rates are based on cases reported to the North Carolina Central Cancer Registry and are subject to change as files are updated.

Table 1: 2017 North Carolina Cancer Incidence and Mortality

	Incidence		Mortality	
	Cases	**Rate**	**Deaths**	**Rate**
All Cancers	58,939	473.7	19,474	157.2
Oral Cavity and Pharynx	1,554	12.3	328	2.6
Lip	57	0.5	1	**
Tongue	500	3.9	97	0.8
Salivary Glands	149	1.2	22	0.2
Floor of Mouth	68	0.5	3	**
Nasopharynx	41	0.4	17	0.1
Oropharynx	93	0.7	37	0.3
Hypopharynx	72	0.6	16	0.1
Other Mouth and Pharynx	574	4.5	135	1.1
Digestive System	9,532	76.7	4,836	38.6
Esophagus	544	4.2	446	3.5
Stomach	786	6.5	349	2.9
Small Intestine	369	3.0	58	0.5
Colon and Rectum	4,291	35.2	1,524	12.5
Anus and Anal Canal	275	2.3	43	0.3
Liver and Intrahepatic Bile Duct	1,126	8.6	818	6.3
Gallbladder	120	0.9	86	0.7
Pancreas	1,659	13.1	1,364	10.8
Other Digestive Organs	362	2.9	148	1.2
Respiratory System	8,739	67.9	5,461	43.3
Larynx	518	4.0	137	1.1
Lung and Bronchus	8,094	62.9	5,286	41.9
Other Respiratory Organs	127	1.1	38	0.3
Bones and Joints	111	1.0	40	0.3
Soft Tissue including Heart	405	3.5	164	1.4
Malignant Melanoma of the Skin	3,061	25.5	252	2.1
Breast	10,698	87.5	1,463	12.0
Invasive Breast	8,801	72.0		
In Situ Breast	1,897	15.5		
Female Genital System	3,143	47.8	1,041	15.0
Cervix Uteri, Invasive	364	6.5	115	1.8
Uterus (Corpus, NOS)	1,777	25.8	382	5.3
Ovary	613	9.5	440	6.3
Other Female Genital Organs	389	5.9	104	1.5

Rates are per 100,000 persons and are age-adjusted to the 2000 U.S. Census.

Cancers of the urinary bladder and female breast include in situ cases.

Brain and other central nervous system cancer excludes benign cases.

** Cancer incidence rates for cell sizes with fewer than 16 cases of cancer and Cancer mortality rates based on cancer deaths less than 16 are suppressed as they are not stable.

Rates are calculated using the bridged-race population estimates obtained from the National Center for Health Statistics available online at www.cdc.gov/nchs/nvss/bridged_race/data_documentation.htm#vintage2018.

Table 1 (continued): 2017 North Carolina Cancer Incidence and Mortality

	Incidence		Mortality	
	Cases	**Rate**	**Deaths**	**Rate**
Male Genital System	7,726	126.7	930	19.1
Prostate	7,432	120.7	911	18.7
Testis	242	5.1	10	**
Penis	39	0.7	7	**
Other Male Genital Organs	13	**	2	**
Urinary System	4,781	38.4	959	7.8
Urinary Bladder	2,517	20.2	464	3.8
Kidney and Renal Pelvis	2,167	17.3	458	3.7
Ureter	64	0.5	21	0.2
Other Urinary Organs	33	0.3	16	0.1
Eye and Orbit	86	0.7	14	**
Brain and Other CNS	677	6.0	517	4.3
Endocrine System	1,269	11.7	94	0.8
Thyroid Gland	1,177	10.8	66	0.5
Other Endocrine and Thymus	92	0.8	28	0.2
Lymphomas	2,296	19.1	633	5.3
Hodgkin Disease	280	2.6	36	0.3
Non-Hodgkin Lymphoma	2,016	16.5	597	5.0
Multiple Myeloma	964	7.6	431	3.5
Leukemia	1,530	12.7	684	5.8
Acute Lymphocytic Leukemia	28	0.3	39	0.4
Chronic Lymphocytic Leukemia	626	5.0	130	1.1
Acute Myeloid Leukemia	482	4.0	330	2.8
Chronic Myeloid Leukemia	247	2.1	35	0.3
Other Leukemia	147	1.2	150	1.3
Other Cancers - Uncategorized	5,944	49.8	1,627	13.3

Rates are per 100,000 persons and are age-adjusted to the 2000 U.S. Census.

Cancers of the urinary bladder and female breast include in situ cases.

Brain and other central nervous system cancer excludes benign cases.

** Cancer incidence rates for cell sizes with fewer than 16 cases of cancer and Cancer mortality rates based on cancer deaths less than 16 are suppressed as they are not stable.
Rates are calculated using the bridged-race population estimates obtained from the National Center for Health Statistics available online at www.cdc.gov/nchs/nvss/bridged_race/data_documentation.htm#vintage2018.

Table 2: 2017 North Carolina Top Ten Cancer Incidence and Mortality Sites

Incidence			Mortality		
	Cases	**Rate**		**Deaths**	**Rate**
Female Breast	10,625	162.3	Lung and Bronchus	5,286	41.9
Prostate	7,432	120.7	Female Breast	1,451	21.5
Lung and Bronchus	8,094	62.9	Prostate	911	18.7
Colon and Rectum	4,291	35.2	Colon and Rectum	1,529	12.5
Corpus Uteri	1,777	25.8	Pancreas	1,364	10.8
Melanoma (Skin)	3,061	25.5	Liver	818	6.3
Urinary Bladder	2,517	20.2	Ovary	440	6.3
Non-Hodgkin Lymphoma	2,021	16.5	Leukemia	684	5.8
Kidney	2,167	17.3	Corpus Uteri	382	5.3
Endocrine	1,269	11.7	Non-Hodgkin Lymphoma	597	5.0

Rates are per 100,000 persons and are age-adjusted to the 2000 U.S. Census.

Cancers of the urinary bladder and female breast include *in situ* cases.

Brain and other central nervous system cancer excludes benign cases.

Rates are calculated using the bridged-race population estimates obtained from the National Center for Health Statistics available online at www.cdc.gov/nchs/nvss/bridged_race/data_documentation.htm#vintage2018.

Table 3: 2017 Cancer Incidence and Mortality by County

	Incidence		Mortality	
	Cases	**Rate**	**Deaths**	**Rate**
North Carolina	58,939	473.7	19,474	157.2
Alamance	1,060	518.0	327	152.9
Alexander	279	527.7	91	172.9
Alleghany	79	393.6	28	126.0
Anson	189	564.3	56	163.5
Ashe	167	370.8	63	126.8
Avery	130	507.3	45	168.1
Beaufort	317	412.5	123	163.8
Bertie	140	471.6	57	186.1
Bladen	187	371.3	86	169.9
Brunswick	1,149	468.8	394	162.8
Buncombe	1,647	462.9	574	155.0
Burke	576	452.4	218	166.3
Cabarrus	1,126	501.1	344	162.3
Caldwell	565	484.4	206	174.7
Camden	46	337.3	19	145.6
Carteret	563	507.8	172	144.0
Caswell	185	531.9	73	202.1
Catawba	918	442.3	343	166.8
Chatham	557	495.2	167	138.9
Cherokee	250	492.4	95	175.7
Chowan	97	392.9	40	184.2
Clay	94	471.2	32	156.4
Cleveland	699	527.4	238	181.6
Columbus	364	467.7	133	164.9
Craven	706	528.7	238	176.2
Cumberland	1,540	487.7	495	160.5
Currituck	136	381.1	44	133.4
Dare	237	425.2	89	168.7
Davidson	1,118	507.4	382	171.1
Davie	291	479.8	99	150.6
Duplin	303	402.1	113	141.6
Durham	1,553	479.9	466	149.7
Edgecombe	342	473.5	132	179.3
Forsyth	2,042	455.4	716	157.5

Rates are per 100,000 persons and are age-adjusted to the 2000 U.S. Census.

Cancers of the urinary bladder and female breast include *in situ* cases.

Brain and other central nervous system cancer excludes benign cases.

** Cancer incidence rates for cell sizes with fewer than 16 cases of cancer and Cancer mortality rates based on cancer deaths less than 16 are suppressed as they are not stable.

Rates are calculated using the bridged-race population estimates obtained from the National Center for Health Statistics available online at www.cdc.gov/nchs/nvss/bridged_race/data_documentation.htm#vintage2018.

Table 3 (continued): 2017 Cancer Incidence and Mortality by County

	Incidence		Mortality	
	Cases	**Rate**	**Deaths**	**Rate**
Franklin	413	477.4	143	171.7
Gaston	1,331	489.0	451	170.4
Gates	50	286.5	29	182.4
Graham	49	347.8	22	149.1
Granville	383	499.2	128	165.5
Greene	118	454.4	39	146.1
Guilford	2,997	491.1	914	150.5
Halifax	381	515.6	148	192.5
Harnett	677	510.5	221	172.8
Haywood	546	541.7	182	174.8
Henderson	855	445.7	268	128.0
Hertford	132	403.6	48	142.8
Hoke	245	526.7	84	182.9
Hyde	25	294.1	12	**
Iredell	981	457.6	320	155.8
Jackson	223	402.8	72	128.8
Johnston	1,073	504.2	322	160.7
Jones	71	488.7	23	146.4
Lee	361	487.1	145	188.6
Lenoir	351	440.2	142	173.9
Lincoln	560	517.0	166	157.1
McDowell	321	499.9	93	143.7
Macon	291	483.7	108	161.6
Madison	150	451.9	44	134.7
Martin	159	422.2	68	176.5
Mecklenburg	4,595	444.4	1,253	130.9
Mitchell	116	462.3	47	179.3
Montgomery	163	425.2	67	171.4
Moore	790	512.5	231	139.9
Nash	520	413.8	245	199.9
New Hanover	1,367	476.5	444	154.2
Northampton	150	495.9	47	144.4
Onslow	797	547.6	254	182.5
Orange	728	466.7	208	145.3
Pamlico	131	550.9	42	162.4

Rates are per 100,000 persons and are age-adjusted to the 2000 U.S. Census.

Cancers of the urinary bladder and female breast include *in situ* cases.

Brain and other central nervous system cancer excludes benign cases.

** Cancer incidence rates for cell sizes with fewer than 16 cases of cancer and Cancer mortality rates based on cancer deaths less than 16 are suppressed as they are not stable.

Rates are calculated using the bridged-race population estimates obtained from the National Center for Health Statistics available online at www.cdc.gov/nchs/nvss/bridged_race/data_documentation.htm#vintage2018.

Table 3 (continued): 2017 Cancer Incidence and Mortality by County

	Incidence		Mortality	
	Cases	**Rate**	**Deaths**	**Rate**
Pasquotank	251	508.0	100	196.1
Pender	369	451.4	123	151.4
Perquimans	93	392.9	33	126.7
Person	288	532.1	94	168.6
Pitt	804	441.4	275	155.1
Polk	174	434.6	52	112.1
Randolph	969	520.0	338	178.3
Richmond	253	434.9	110	187.5
Robeson	701	456.1	318	210.8
Rockingham	672	506.4	215	157.1
Rowan	904	495.5	342	185.6
Rutherford	429	441.9	175	175.1
Sampson	404	498.3	150	178.8
Scotland	219	482.7	86	183.7
Stanly	443	530.5	134	160.8
Stokes	334	488.3	139	194.9
Surry	540	525.7	207	192.4
Swain	99	499.4	49	238.6
Transylvania	259	430.2	91	133.5
Tyrrell	32	501.7	10	**
Union	1,206	489.2	350	154.2
Vance	249	434.1	128	220.2
Wake	4,858	460.1	1,327	137.5
Warren	144	463.0	50	151.4
Washington	102	543.8	43	210.6
Watauga	244	399.8	90	148.1
Wayne	791	527.8	261	172.7
Wilkes	411	409.4	155	141.7
Wilson	470	433.4	163	148.1
Yadkin	217	408.4	94	176.7
Yancey	160	547.5	44	140.1

Rates are per 100,000 persons and are age-adjusted to the 2000 U.S. Census.

Cancers of the urinary bladder and female breast include *in situ* cases.

Brain and other central nervous system cancer excludes benign cases.

** Cancer incidence rates for cell sizes with fewer than 16 cases of cancer and Cancer mortality rates based on cancer deaths less than 16 are suppressed as they are not stable.

Rates are calculated using the bridged-race population estimates obtained from the National Center for Health Statistics available online at www.cdc.gov/nchs/nvss/bridged_race/data_documentation.htm#vintage2018.

Table 4: 2017 Ten Highest and Lowest Cancer Incidence and Mortality Rates by County

Incidence - Lowest Ten			Mortality - Lowest Ten		
	Cases	**Rate**		**Deaths**	**Rate**
Gates	50	286.5	Polk	52	112.1
Hyde	25	294.1	Alleghany	28	126.0
Camden	46	337.3	Perquimans	33	126.7
Graham	49	347.8	Ashe	63	126.8
Ashe	167	370.8	Henderson	268	128.0
Bladen	187	371.3	Jackson	72	128.8
Currituck	136	381.1	Mecklenburg	1,253	130.9
Perquimans	93	392.9	Currituck	44	133.4
Chowan	97	392.9	Transylvania	91	133.5
Alleghany	79	393.6	Madison	44	134.7

Incidence - Highest Ten			Mortality - Highest Ten		
	Cases	**Rate**		**Deaths**	**Rate**
Anson	189	564.3	Swain	49	238.6
Pamlico	131	550.9	Vance	128	220.2
Onslow	797	547.6	Robeson	318	210.8
Yancey	160	547.5	Washington	43	210.6
Washington	102	543.8	Caswell	73	202.1
Haywood	546	541.7	Nash	245	199.9
Person	288	532.1	Pasquotank	100	196.1
Caswell	185	531.9	Stokes	139	194.9
Stanly	443	530.5	Halifax	148	192.5
Craven	706	528.7	Surry	207	192.4

Rates are per 100,000 persons and are age-adjusted to the 2000 U.S. Census.

Cancers of the urinary bladder and female breast include *in situ* cases.

Brain and other central nervous system cancer excludes benign cases.

Rates are calculated using the bridged-race population estimates obtained from the National Center for Health Statistics available online at www.cdc.gov/nchs/nvss/bridged_race/data_documentation.htm#vintage2018.

Table 5: 2017 Cancer Incidence and Mortality by Age Group

	Incidence				Mortality			
	0-19		20-44		0-19		20-44	
	Cases	Rate	Cases	Rate	Deaths	Rate	Deaths	Rate
All Cancers	443	17.2	3,757	111.9	50	1.9	526	15.7
Oral Cavity	*	*	78	2.3	1	**	13	**
Esophagus	*	*	15	**	0	0.0	12	**
Stomach	0	0.0	59	1.8	0	0.0	19	0.6
Colon and Rectum	11	**	297	8.8	0	0.0	66	2.0
Liver	8	**	25	0.7	1	**	13	**
Gallbladder	0	0.0	*	*	0	0.0	0	0.0
Pancreas	*	*	43	1.3	0	0.0	21	0.6
Larynx	0	0.0	6	**	0	0.0	2	**
Lung and Bronchus	*	*	78	2.3	0	0.0	37	1.1
Bone	27	1.0	25	0.7	3	**	6	**
Soft Tissue	21	0.8	55	1.6	3	**	23	0.7
Melanoma (Skin)	6	**	331	9.9	0	0.0	14	**
Female Breast	*	*	884	52.5	0	0.0	76	4.5
Cervix Uteri	*	*	126	7.5	0	0.0	19	1.1
Corpus Uteri	*	*	105	6.2	0	0.0	7	**
Ovary	6	**	73	4.3	0	0.0	11	**
Prostate	*	*	20	1.2	0	0.0	0	0.0
Testes	11	**	181	10.8	0	0.0	6	**
Urinary Bladder	*	*	36	1.1	0	0.0	2	**
Kidney	15	**	135	4.0	2	**	8	**
Endocrine	39	1.5	417	12.4	4	**	2	**
Multiple Myeloma	0	0.0	29	0.9	0	0.0	2	**
Leukemia	46	1.8	111	3.3	15	**	34	1.0
Brain and Other CNS	82	3.2	120	3.6	15	**	55	1.6
Hodgkin Disease	36	1.4	108	3.2	1	**	4	**
Non-Hodgkin Lymphoma	17	0.7	149	4.4	2	**	15	**
Other Cancers	102	4.0	250	7.4	3	**	59	1.8

Rates are per 100,000 persons are age-adjusted to the 2000 U.S. Census.

Cancers of the urinary bladder and female breast include *in situ* cases.

Brain and other central nervous system cancer excludes benign cases.

*Cell sizes with fewer than five cases of cancer incidence are suppressed for confidentiality.

** Cancer incidence rates for cell sizes with fewer than 16 cases of cancer and Cancer mortality rates based on cancer deaths less than 16 are suppressed as they are not stable.

Rates are calculated using the bridged-race population estimates obtained from the National Center for Health Statistics available online at www.cdc.gov/nchs/nvss/bridged_race/data_documentation.htm#vintage2018.

Table 5 (continued): 2017 Cancer Incidence and Mortality by Age Group

	Incidence				Mortality			
	45-64		65 and above		45-64		65 and above	
	Cases	**Rate**	**Cases**	**Rate**	**Deaths**	**Rate**	**Deaths**	**Rate**
All Cancers	21,903	809.1	32,839	2014.1	5,242	193.6	13,656	837.6
Oral Cavity	754	27.9	719	44.1	113	4.2	201	12.3
Esophagus	194	7.2	334	20.5	139	5.1	295	18.1
Stomach	247	9.1	480	29.4	96	3.5	234	14.4
Colon and Rectum	1,636	60.4	2,347	143.9	456	16.8	1,007	61.8
Liver	516	19.1	577	35.4	322	11.9	482	29.6
Gallbladder	44	1.6	75	4.6	21	0.8	65	4.0
Pancreas	515	19.0	1,099	67.4	384	14.2	959	58.8
Larynx	234	8.6	278	17.1	50	1.8	85	5.2
Lung and Bronchus	2,518	93.0	5,495	337.0	1,399	51.7	3,850	236.1
Bone	33	1.2	26	1.6	14	**	17	1.0
Soft Tissue	125	4.6	204	12.5	50	1.8	88	5.4
Melanoma (Skin)	1,109	41.0	1,615	99.1	69	2.5	169	10.4
Female Breast	4,781	340.2	4,958	539.9	496	35.3	879	95.7
Cervix Uteri	157	11.2	80	8.7	55	3.9	41	4.5
Uterus (Corpus, NOS)	850	60.5	821	89.4	121	8.6	254	27.7
Ovary	252	17.9	282	30.7	144	10.2	285	31.0
Prostate	2,980	228.9	4,432	622.3	99	7.6	812	114.0
Testes	42	3.2	8	**	2	**	2	**
Urinary Bladder	575	21.2	1,904	116.8	58	2.1	404	24.8
Kidney	943	34.8	1,074	65.9	116	4.3	332	20.4
Endocrine	488	18.0	325	19.9	23	0.8	65	4.0
Multiple Myeloma	320	11.8	615	37.7	76	2.8	353	21.7
Leukemia	428	15.8	947	58.1	135	5.0	500	30.7
Brain and Other CNS	205	7.6	270	16.6	175	6.5	272	16.7
Hodgkin Disease	78	2.9	58	3.6	7	**	24	1.5
Non-Hodgkin Lymphoma	633	23.4	1,222	74.9	89	3.3	491	30.1
Other Cancers	1,246	46.0	2,594	159.1	533	19.7	1,490	91.4

Rates are per 100,000 persons are age-adjusted to the 2000 U.S. Census.

Cancers of the urinary bladder and female breast include *in situ* cases.

Brain and other central nervous system excludes benign cases.

*Cell sizes with fewer than five cases of cancer incidence are suppressed for confidentiality.

** Cancer incidence rates for cell sizes with fewer than 16 cases of cancer and Cancer mortality rates based on cancer deaths less than 16 are suppressed as they are not stable.

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Table 6: 2017 Top Ten Cancer Incidence and Mortality by Age Group

Ages 0 to 19

Incidence	Cases	Rate	Mortality	Deaths	Rate
Brain and Other CNS	82	3.2	Brain and Other CNS	15	**
Leukemia	46	1.8	Leukemia	15	**
Endocrine	39	1.5	Endocrine	4	**
Hodgkin Disease	36	1.4	Bone	3	**
Bone	27	1.0	Soft Tissue	3	**
Soft Tissue	21	0.8	Non-Hodgkin Lymphoma	2	**
Testes	11	**	Kidney	2	**
Non-Hodgkin Lymphoma	17	0.7	Hodgkin Disease	1	**
Kidney	15	**	Oral Cavity	1	**
Ovary	6	**	Liver	1	**

Ages 20 to 44

Incidence	Cases	Rate	Mortality	Deaths	Rate
Female Breast	884	52.5	Female Breast	76	4.5
Endocrine	417	12.4	Colon and Rectum	66	2.0
Testes	181	10.8	Brain and Other CNS	55	1.6
Melanoma (Skin)	331	9.9	Lung and Bronchus	37	1.1
Colon and Rectum	297	8.8	Cervix Uteri	19	1.1
Cervix Uteri	126	7.5	Leukemia	34	1.0
Corpus Uteri	105	6.2	Soft Tissue	23	0.7
Non-Hodgkin Lymphoma	149	4.4	Ovary	11	**
Ovary	73	4.3	Pancreas	21	0.6
Kidney	135	4.0	Stomach	19	0.6

Rates are per 100,000 persons are age-adjusted to the 2000 U.S. Census.

Cancers of the urinary bladder and female breast include *in situ* cases.

Brain and other central nervous system cancer excludes benign cases.

** Cancer incidence rates for cell sizes with fewer than 16 cases of cancer and Cancer mortality rates based on cancer deaths less than 16 are suppressed as they are not stable.

Rates are calculated using the bridged-race population estimates obtained from the National Center for Health Statistics available online at www.cdc.gov/nchs/nvss/bridged_race/data_documentation.htm#vintage2018.

Table 6 (continued): 2017 Top Ten Cancer Incidence and Mortality by Age Group

Ages 45 to 64

Incidence			Mortality		
	Cases	**Rate**		**Deaths**	**Rate**
Female Breast	4,781	340.2	Lung and Bronchus	1,399	51.7
Prostate	2,980	228.9	Female Breast	496	35.3
Lung and Bronchus	2,518	93.0	Colon and Rectum	456	16.8
Corpus Uteri	850	60.5	Pancreas	384	14.2
Colon and Rectum	1,636	60.4	Liver	322	11.9
Melanoma (Skin)	1,109	41.0	Ovary	144	10.2
Kidney	943	34.8	Corpus Uteri	121	8.6
Oral Cavity	754	27.9	Prostate	99	7.6
Non-Hodgkin Lymphoma	633	23.4	Brain and Other CNS	175	6.5
Urinary Bladder	575	21.2	Esophagus	139	5.1

Ages 65 and above

Incidence			Mortality		
	Cases	**Rate**		**Deaths**	**Rate**
Prostate	4,432	622.3	Lung and Bronchus	3,850	236.1
Female Breast	4,958	539.9	Prostate	812	114.0
Lung and Bronchus	5,495	337.0	Female Breast	879	95.7
Colon and Rectum	2,347	143.9	Colon and Rectum	1,007	61.8
Urinary Bladder	1,904	116.8	Pancreas	959	58.8
Melanoma (Skin)	1,615	99.1	Ovary	285	31.0
Corpus Uteri	821	89.4	Leukemia	500	30.7
Non-Hodgkin Lymphoma	1,222	74.9	Non-Hodgkin Lymphoma	491	30.1
Pancreas	1,099	67.4	Urinary Bladder	404	24.8
Kidney	1,074	65.9	Kidney	332	20.4

Rates are per 100,000 persons are age-adjusted to the 2000 U.S. Census.

Cancers of the urinary bladder and female breast include *in situ* cases.

Brain and other central nervous system cancer excludes benign cases.

** Cancer incidence rates for cell sizes with fewer than 16 cases of cancer and Cancer mortality rates based on cancer deaths less than 16 are suppressed as they are not stable.

Rates are calculated using the bridged-race population estimates obtained from the National Center for Health Statistics available online at www.cdc.gov/nchs/nvss/bridged_race/data_documentation.htm#vintage2018.

Table 7: 2017 Cancer Incidence and Mortality by Gender

	Incidence				Mortality			
	Males		Females		Males		Females	
	Cases	Rate	Cases	Rate	Deaths	Rate	Deaths	Rate
All Cancers	29,027	509.3	29,907	452.3	10,165	189.6	9,309	134.8
Oral Cavity and Pharynx	1,101	18.7	452	6.7	234	4.1	94	1.4
Lip	40	0.7	17	0.2	0	0.0	1	**
Tongue	360	6.0	139	2.1	71	1.3	26	0.4
Salivary Glands	95	1.7	54	0.9	10	**	12	**
Floor of Mouth	48	0.8	20	0.3	1	**	2	**
Nasopharynx	25	0.4	16	0.3	13	**	4	**
Oropharynx	72	1.2	21	0.3	30	0.5	7	**
Hypopharynx	62	1.0	10	**	14	**	2	**
Other Mouth and Pharynx	399	6.7	175	2.6	95	1.6	40	0.6
Digestive System	5,297	93.8	4,235	62.9	2,742	49.4	2,094	30.1
Esophagus	450	7.7	94	1.4	358	6.3	88	1.3
Stomach	488	8.9	298	4.6	201	3.8	148	2.2
Small Intestine	190	3.3	179	2.7	34	0.6	24	0.4
Colon and Rectum	2,242	40.5	2,049	30.9	787	14.7	737	10.7
Anus and Anal Canal	82	1.5	193	2.9	17	0.3	26	0.4
Liver and Intrahepatic Bile Duct	807	13.3	319	4.6	538	9.0	280	4.0
Gallbladder	38	0.7	82	1.1	29	0.5	57	0.8
Pancreas	846	15.0	813	11.6	716	12.9	648	9.2
Other Digestive Organs	154	2.9	208	3.1	62	1.2	86	1.3
Respiratory System	4,788	83.9	3,950	55.7	3,124	56.8	2,337	33.3
Larynx	403	6.8	114	1.6	111	1.9	26	0.4
Lung and Bronchus	4,293	75.4	3,801	53.6	2,987	54.3	2,299	32.7
Other Respiratory Organs	92	1.7	35	0.5	26	0.5	12	**
Bones and Joints	63	1.2	48	0.9	25	0.5	15	**
Soft Tissue including Heart	238	4.4	167	2.7	82	1.6	82	1.2
Malignant Melanoma of the Skin	1,812	33.2	1,249	19.9	156	3.0	96	1.4
Breast	72	1.4	10,625	162.3	12	**	1,451	21.5
Invasive Breast	63	1.2	8,738	133.3				
In Situ Breast	9	**	1,887	29.0				
Female Genital System	.	.	3,143	47.8	.	.	1,041	15.0
Cervix Uteri, Invasive	.	.	364	6.5	.	.	115	1.8
Uterus (Corpus, NOS)	.	.	1,777	25.8	.	.	382	5.3
Ovary	.	.	613	9.5	.	.	440	6.3
Other Female Genital Organs	.	.	389	5.9	.	.	104	1.5

Rates are per 100,000 persons are age-adjusted to the 2000 U.S. Census.

Cancers of the urinary bladder and female breast include *in situ* cases. Brain and other Central Nervous System cancer excludes benign cases.

** Cancer incidence rates for cell sizes with fewer than 16 cases of cancer and Cancer mortality rates based on cancer deaths less than 16 are suppressed as they are not stable.

Rates are calculated using the bridged-race population estimates obtained from the National Center for Health Statistics available online at www.cdc.gov/nchs/nvss/bridged_race/data_documentation.htm#vintage2018.

Table 7 (continued): 2017 Cancer Incidence and Mortality by Gender

	Incidence				Mortality			
	Males		Females		Males		Females	
	Cases	Rate	Cases	Rate	Deaths	Rate	Deaths	Rate
Male Genital System	7,726	126.7	.	.	930	19.1	.	.
Prostate	7,432	120.7	.	.	911	18.7	.	.
Testis	242	5.1	.	.	10	**	.	.
Penis	39	0.7	.	.	7	**	.	.
Other Male Genital Organs	13	**	.	.	2	**	.	.
Urinary System	3,290	59.7	1,491	21.9	648	12.5	311	4.5
Urinary Bladder	1,869	35.0	648	9.3	339	6.7	125	1.8
Kidney and Renal Pelvis	1,357	23.5	810	12.2	284	5.3	174	2.5
Ureter	39	0.8	25	0.4	15	**	6	**
Other Urinary Organs	25	0.5	8	**	10	**	6	**
Eye and Orbit	45	0.8	41	0.6	7	**	7	**
Brain and Other CNS	376	7.1	301	5.0	260	4.9	257	4.0
Endocrine System	329	6.2	940	16.9	40	0.7	54	0.8
Thyroid Gland	282	5.3	895	16.1	27	0.5	39	0.5
Other Endocrine and Thymus	47	0.9	45	0.8	13	**	15	**
Lymphomas	1,237	22.8	1,059	16.1	375	7.4	258	3.8
Hodgkin Disease	156	3.0	124	2.3	21	0.4	15	**
Non-Hodgkin Lymphoma	1,081	19.8	935	13.9	354	7.0	243	3.6
Multiple Myeloma	516	8.9	448	6.5	231	4.4	200	2.9
Leukemia	879	16.3	649	9.9	382	7.5	302	4.5
Acute Lymphocytic Leukemia	19	0.4	9	**	28	0.6	11	**
Chronic Lymphocytic Leukemia	357	6.4	269	4.0	72	1.4	58	0.8
Acute Myeloid Leukemia	276	5.2	206	3.2	183	3.5	147	2.2
Chronic Myeloid Leukemia	143	2.7	103	1.6	19	0.4	16	0.2
Other Leukemia	84	1.6	62	1.0	80	1.6	70	1.1
Other Cancers - Uncategorized	3,371	62.8	2,573	40.0	917	17.4	710	10.2

Rates are per 100,000 persons are age-adjusted to the 2000 U.S. Census.

Cancers of the urinary bladder and female breast include *in situ* cases. Brain and other Central Nervous System cancer excludes benign cases.

** Cancer incidence rates for cell sizes with fewer than 16 cases of cancer and Cancer mortality rates based on cancer deaths less than 16 are suppressed as they are not stable.

Rates are calculated using the bridged-race population estimates obtained from the National Center for Health Statistics available online at www.cdc.gov/nchs/nvss/bridged_race/data_documentation.htm#vintage2018.

Table 8: 2017 Top Ten Cancer Incidence and Mortality Sites by Gender

Males

Incidence			Mortality		
	Cases	**Rate**		**Deaths**	**Rate**
Prostate	7,432	120.7	Lung and Bronchus	2,987	54.3
Lung and Bronchus	4,293	75.4	Prostate	911	18.7
Colon and Rectum	2,242	40.5	Colon and Rectum	787	14.7
Urinary Bladder	1,869	35.0	Pancreas	716	12.9
Melanoma (Skin)	1,812	33.2	Liver	538	9.0
Non-Hodgkin Lymphoma	1,083	19.9	Leukemia	382	7.5
Kidney	1,357	23.5	Non-Hodgkin Lymphoma	354	7.0
Oral Cavity	1,101	18.7	Urinary Bladder	339	6.7
Leukemia	879	16.3	Esophagus	358	6.3
Pancreas	846	15.0	Kidney	284	5.3

Females

Incidence			Mortality		
	Cases	**Rate**		**Deaths**	**Rate**
Female Breast	10,625	162.3	Lung and Bronchus	2,299	32.7
Lung and Bronchus	3,801	53.6	Female Breast	1,451	21.5
Colon and Rectum	2,049	30.9	Colon and Rectum	742	10.8
Corpus Uteri	1,777	25.8	Pancreas	648	9.2
Melanoma (Skin)	1,249	19.9	Ovary	440	6.3
Endocrine	940	16.9	Corpus Uteri	382	5.3
Non-Hodgkin Lymphoma	938	13.9	Leukemia	302	4.5
Kidney	810	12.2	Brain and Other CNS	257	4.0
Pancreas	813	11.6	Liver	280	4.0
Leukemia	649	9.9	Non-Hodgkin Lymphoma	243	3.6

Rates are per 100,000 persons and are age-adjusted to the 2000 U.S. Census.

Cancers of the urinary bladder and female breast include *in situ* cases.

Brain and other central nervous system cancers exclude benign cases.

Rates are calculated using the bridged-race population estimates obtained from the National Center for Health Statistics available online at www.cdc.gov/nchs/nvss/bridged_race/data_documentation.htm#vintage2018.

Table 9: 2017 Cancer Incidence and Mortality by Race

	Incidence				Mortality			
	Whites		Minorities		Whites		Minorities	
	Cases	Rate	Cases	Rate	Deaths	Rate	Deaths	Rate
All Cancers	44,963	466.7	12,730	450.7	14,874	151.6	4,411	169.0
Oral Cavity and Pharynx	1,275	13.1	251	8.6	248	2.5	77	2.8
Lip	52	0.5	*	*	0	0.0	1	**
Tongue	431	4.4	61	2.1	78	0.8	18	0.6
Salivary Glands	112	1.2	36	1.2	17	0.2	5	**
Floor of Mouth	54	0.5	14	**	2	**	1	**
Nasopharynx	22	0.3	18	0.6	7	**	10	**
Oropharynx	78	0.8	12	**	31	0.3	6	**
Hypopharynx	51	0.5	19	0.6	11	**	5	**
Other Mouth and Pharynx	475	4.8	88	3.1	102	1.0	31	1.1
Digestive System	7,028	72.7	2,400	86.9	3,515	35.6	1,250	46.9
Esophagus	445	4.4	96	3.4	365	3.6	77	2.7
Stomach	517	5.4	262	10.0	209	2.2	133	5.4
Small Intestine	254	2.6	111	3.9	37	0.4	20	0.8
Colon and Rectum	3,157	33.5	1,059	38.4	1,093	11.3	414	16.1
Anus and Anal Canal	219	2.3	54	1.9	33	0.3	10	**
Liver and Intrahepatic Bile Duct	845	8.3	277	9.2	585	5.8	215	7.3
Gallbladder	70	0.7	50	1.7	58	0.6	25	1.0
Pancreas	1,236	12.4	416	15.6	1,025	10.3	319	11.9
Other Digestive Organs	285	3.0	75	2.8	110	1.1	37	1.4
Respiratory System	7,009	69.2	1,702	61.1	4,361	43.6	1,082	41.5
Larynx	376	3.7	140	4.8	84	0.8	53	2.0
Lung and Bronchus	6,528	64.4	1,542	55.6	4,251	42.5	1,018	39.0
Other Respiratory Organs	105	1.1	20	0.7	26	0.3	11	**
Bones and Joints	84	1.1	25	0.9	28	0.3	9	**
Soft Tissue including Heart	311	3.4	89	3.4	109	1.1	51	1.8
Malignant Melanoma of the Skin	2,839	30.7	30	1.1	240	2.5	12	**
Breast	8,015	85.1	2,592	91.8	1,060	11.0	389	14.4
Invasive Breast	6,613	70.1	2,127	75.6				
In Situ Breast	1,402	15.0	465	16.2				
Female Genital System	2,353	47.6	742	45.6	765	14.3	267	16.6
Cervix Uteri, Invasive	241	6.1	113	7.1	70	1.6	43	2.6
Uterus (Corpus, NOS)	1,308	25.3	445	26.6	250	4.6	130	7.9
Ovary	496	10.1	110	7.3	356	6.6	80	5.1
Other Female Genital Organs	308	6.1	74	4.6	89	1.6	14	**

Rates are per 100,000 persons and are age-adjusted to the 2000 U.S. Census.

Cancers of the urinary bladder and female breast include *in situ* cases. Brain and other central nervous system cancers exclude benign cases.
*Cell sizes with fewer then five cases of cancer incidence are suppressed for confidentiality.
** Cancer incidence rates for cell sizes with fewer than 16 cases of cancer and Cancer mortality rates based on cancer deaths less than 16 are suppressed as they are not stable.
Rates are calculated using the bridged-race population estimates obtained from the National Center for Health Statistics available online at www.cdc.gov/nchs/nvss/bridged_race/data_documentation.htm#vintage2018.

Table 9 (continued): 2017 Cancer Incidence and Mortality by Race

	Incidence				Mortality			
	Whites		Minorities		Whites		Minorities	
	Cases	Rate	Cases	Rate	Deaths	Rate	Deaths	Rate
Male Genital System	5,189	108.4	2,044	158.8	630	15.9	288	33.7
Prostate	4,935	101.2	2,005	155.9	614	15.5	285	33.4
Testis	218	6.4	23	1.7	8	**	2	**
Penis	27	0.7	12	**	6	**	1	**
Other Male Genital Organs	9	**	*	*	2	**	0	0.0
Urinary System	3,833	39.3	894	31.8	780	8.0	171	7.1
Urinary Bladder	2,140	21.7	340	13.0	393	4.0	67	2.9
Kidney and Renal Pelvis	1,611	16.8	539	18.2	357	3.7	97	3.9
Ureter	56	0.6	8	**	15	**	6	**
Other Urinary Organs	26	0.3	7	**	15	**	1	**
Eye and Orbit	76	0.8	9	**	13	**	1	**
Brain and Other CNS	567	6.6	109	3.9	431	4.6	78	2.9
Endocrine System	969	12.1	283	10.0	69	0.7	22	0.8
Thyroid Gland	906	11.3	255	8.9	53	0.5	10	**
Other Endocrine and Thymus	63	0.8	28	1.0	16	0.2	12	**
Lymphomas	1,809	19.3	457	16.5	522	5.5	104	4.1
Hodgkin Disease	197	2.5	82	2.9	27	0.3	8	**
Non-Hodgkin Lymphoma	1,612	16.8	375	13.6	495	5.2	96	3.8
Multiple Myeloma	573	5.7	383	14.1	273	2.8	154	6.4
Leukemia	1,201	12.7	283	10.7	556	5.9	120	4.8
Acute Lymphocytic Leukemia	11	**	17	0.6	32	0.4	5	**
Chronic Lymphocytic Leukemia	509	5.2	87	3.5	102	1.0	26	1.1
Acute Myeloid Leukemia	373	4.0	104	3.8	267	2.8	59	2.2
Chronic Myeloid Leukemia	191	2.1	47	1.8	28	0.3	7	**
Other Leukemia	117	1.3	28	1.0	127	1.4	23	1.0
Other Cancers - Uncategorized	5,066	54.7	581	21.9	1,274	13.0	336	12.8

Rates are per 100,000 persons and are age-adjusted to the 2000 U.S. Census.
Cancers of the urinary bladder and female breast include *in situ* cases. Brain and other central nervous system cancers exclude benign cases.
*Cell sizes with fewer than five cases of cancer incidence are suppressed for confidentiality.
** Cancer incidence rates for cell sizes with fewer than 16 cases of cancer and Cancer mortality rates based on cancer deaths less than 16 are suppressed as they are not stable.
Rates are calculated using the bridged-race population estimates obtained from the National Center for Health Statistics available online at www.cdc.gov/nchs/nvss/bridged_race/data_documentation.htm#vintage2018.

Table 10: 2017 Top Ten Cancer Incidence and Mortality Sites by Race

Whites

Incidence			Mortality		
	Cases	**Rate**		**Deaths**	**Rate**
Female Breast	7,967	160.7	Lung and Bronchus	4,251	42.5
Prostate	4,935	101.2	Female Breast	1,051	19.9
Lung and Bronchus	6,528	64.4	Prostate	614	15.5
Colon and Rectum	3,157	33.5	Colon and Rectum	1,097	11.4
Melanoma (Skin)	2,839	30.7	Pancreas	1,025	10.3
Corpus Uteri	1,308	25.3	Ovary	356	6.6
Urinary Bladder	2,140	21.7	Leukemia	556	5.9
Non-Hodgkin Lymphoma	1,616	16.9	Liver	585	5.8
Kidney	1,611	16.8	Non-Hodgkin Lymphoma	495	5.2
Oral Cavity	1,275	13.1	Brain and Other CNS	431	4.6

Minorities

Incidence			Mortality		
	Cases	**Rate**		**Deaths**	**Rate**
Female Breast	2,568	160.7	Lung and Bronchus	1,018	39.0
Prostate	2,005	155.9	Prostate	285	33.4
Lung and Bronchus	1,542	55.6	Female Breast	386	24.6
Colon and Rectum	1,059	38.4	Colon and Rectum	415	16.1
Corpus Uteri	445	26.6	Pancreas	319	11.9
Kidney	539	18.2	Corpus Uteri	130	7.9
Pancreas	416	15.6	Liver	215	7.3
Multiple Myeloma	383	14.1	Multiple Myeloma	154	6.4
Non-Hodgkin Lymphoma	376	13.7	Stomach	133	5.4
Urinary Bladder	340	13.0	Ovary	80	5.1

Rates are per 100,000 persons and are age-adjusted to the 2000 U.S. Census.

Cancers of the urinary bladder and female breast include *in situ* cases.

Brain and other central nervous system cancers exclude benign cases.

Rates are calculated using the bridged-race population estimates obtained from the National Center for Health Statistics available online at www.cdc.gov/nchs/nvss/bridged_race/data_documentation.htm#vintage2018.

Table 11: 2017 Top Ten Cancer Incidence and Mortality by Race and Gender

White Males

Incidence			Mortality		
	Cases	**Rate**		**Deaths**	**Rate**
Prostate	4,935	101.2	Lung and Bronchus	2,382	53.6
Lung and Bronchus	3,412	74.7	Prostate	614	15.5
Melanoma (Skin)	1,694	39.0	Colon and Rectum	575	13.4
Colon and Rectum	1,676	38.5	Pancreas	539	12.2
Urinary Bladder	1,616	37.4	Liver	379	8.1
Kidney	1,036	23.0	Leukemia	317	7.7
Non-Hodgkin Lymphoma	874	20.2	Urinary Bladder	298	7.2
Oral Cavity	915	19.9	Non-Hodgkin Lymphoma	296	7.2
Leukemia	707	16.4	Esophagus	302	6.6
Pancreas	638	14.2	Kidney	227	5.3

White Females

Incidence			Mortality		
	Cases	**Rate**		**Deaths**	**Rate**
Female Breast	7,967	160.7	Lung and Bronchus	1,869	34.1
Lung and Bronchus	3,116	56.6	Female Breast	1,051	19.9
Colon and Rectum	1,481	29.2	Colon and Rectum	522	9.6
Corpus Uteri	1,308	25.3	Pancreas	486	8.8
Melanoma (Skin)	1,145	24.4	Ovary	356	6.6
Endocrine	698	17.4	Corpus Uteri	250	4.6
Non-Hodgkin Lymphoma	742	14.2	Leukemia	239	4.5
Kidney	575	11.4	Brain and Other CNS	216	4.3
Pancreas	598	11.0	Liver	206	3.8
Ovary	496	10.1	Non-Hodgkin Lymphoma	199	3.7

Rates are per 100,000 persons and are age-adjusted to the 2000 U.S. Census.

Cancers of the urinary bladder and female breast include *in situ* cases.

Brain and other central nervous system cancers exclude benign cases.

Rates are calculated using the bridged-race population estimates obtained from the National Center for Health Statistics available online at www.cdc.gov/nchs/nvss/bridged_race/data_documentation.htm#vintage2018.

Table 11 (continued): 2017 Top Ten Cancer Incidence and Mortality by Race and Gender

Minority Males

Incidence			Mortality		
	Cases	**Rate**		**Deaths**	**Rate**
Prostate	2,005	155.9	Lung and Bronchus	593	56.7
Lung and Bronchus	868	75.8	Prostate	285	33.4
Colon and Rectum	522	43.8	Colon and Rectum	207	19.4
Kidney	311	23.5	Pancreas	167	14.5
Urinary Bladder	222	21.1	Liver	143	10.6
Multiple Myeloma	215	18.4	Multiple Myeloma	83	8.9
Pancreas	206	17.9	Stomach	74	7.2
Non-Hodgkin Lymphoma	193	16.2	Leukemia	61	5.9
Liver	201	15.1	Non-Hodgkin Lymphoma	54	5.4
Stomach	153	14.2	Kidney	54	5.2

Minority Females

Incidence			Mortality		
	Cases	**Rate**		**Deaths**	**Rate**
Female Breast	2,568	160.7	Lung and Bronchus	425	27.6
Lung and Bronchus	674	42.0	Female Breast	386	24.6
Colon and Rectum	537	34.4	Colon and Rectum	208	13.9
Corpus Uteri	445	26.6	Pancreas	152	9.8
Endocrine	229	14.6	Corpus Uteri	130	7.9
Kidney	228	14.1	Ovary	80	5.1
Pancreas	210	13.6	Multiple Myeloma	71	5.0
Non-Hodgkin Lymphoma	183	11.8	Leukemia	59	4.1
Multiple Myeloma	168	10.9	Stomach	59	4.1
Leukemia	130	8.8	Cervix Uteri	43	2.6

Rates are per 100,000 persons and are age-adjusted to the 2000 U.S. Census.
Cancers of the urinary bladder and female breast include *in situ* cases.

Brain and other central nervous system cancer excludes benign cases.

Rates are calculated using the bridged-race population estimates obtained from the National Center for Health Statistics available online at www.cdc.gov/nchs/nvss/bridged_race/data_documentation.htm#vintage2018.

Table 12: 2013 – 2017 Top Five Cancer Incidence and Mortality Sites by Age Group, Race and Gender

White Males

Incidence			Mortality		
Ages 0 to 19					
	Cases	**Rate**		**Deaths**	**Rate**
Brain and Other CNS	171	3.9	Brain and Other CNS	29	0.7
Leukemia	101	2.3	Leukemia	28	0.6
Hodgkin Disease	62	1.4	Soft Tissue	15	**
Testes	53	1.2	Endocrine	13	**
Soft Tissue	52	1.2	Bone	10	**
Ages 20 to 44					
	Cases	**Rate**		**Deaths**	**Rate**
Testes	787	13.4	Colon and Rectum	121	2.1
Melanoma (Skin)	685	11.6	Brain and Other CNS	92	1.6
Colon and Rectum	516	8.8	Lung and Bronchus	77	1.3
Endocrine	367	6.2	Leukemia	62	1.1
Kidney	328	5.6	Melanoma (Skin)	40	0.7
Ages 45 to 64					
	Cases	**Rate**		**Deaths**	**Rate**
Prostate	8,746	181.1	Lung and Bronchus	3,228	66.8
Lung and Bronchus	5,057	104.7	Colon and Rectum	921	19.1
Colon and Rectum	3,302	68.4	Liver	839	17.4
Melanoma (Skin)	2,893	59.9	Pancreas	724	15.0
Oral Cavity	2,265	46.9	Esophagus	528	10.9
Ages 65 and above					
	Cases	**Rate**		**Deaths**	**Rate**
Prostate	14,498	533.7	Lung and Bronchus	9,044	332.9
Lung and Bronchus	12,273	451.8	Prostate	2,782	102.4
Urinary Bladder	5,903	217.3	Colon and Rectum	1,975	72.7
Melanoma (Skin)	4,938	181.8	Pancreas	1,821	67.0
Colon and Rectum	4,652	171.2	Leukemia	1,286	47.3

Rates are per 100,000 persons and are age-adjusted to the 2000 U.S. Census.
Cancers of the urinary bladder and female breast include *in situ* cases. Brain and other Central Nervous System cancer excludes benign cases.
** Cancer incidence rates for cell sizes with fewer than 16 cases of cancer and Cancer mortality rates based on cancer deaths less than 16 are suppressed as they are not stable.
Rates are calculated using the bridged-race population estimates obtained from the National Center for Health Statistics available online at www.cdc.gov/nchs/nvss/bridged_race/data_documentation.htm#vintage2018.

Table 12 (continued): 2013 – 2017 Top Five Cancer Incidence and Mortality Sites by Age Group, Race and Gender

White Females

Incidence			Mortality		
Ages 0 to 19					
	Cases	**Rate**		**Deaths**	**Rate**
Brain and Other CNS	129	3.1	Leukemia	18	0.4
Endocrine	81	1.9	Brain and Other CNS	14	**
Leukemia	55	1.3	Soft Tissue	8	**
Hodgkin Disease	46	1.1	Bone	7	**
Bone	44	1.0	Endocrine	3	**
Ages 20 to 44					
	Cases	**Rate**		**Deaths**	**Rate**
Female Breast	3,248	56.6	Female Breast	210	3.7
Endocrine	1,342	23.4	Colon and Rectum	83	1.4
Melanoma (Skin)	1,010	17.6	Lung and Bronchus	81	1.4
Cervix Uteri	510	8.9	Cervix Uteri	79	1.4
Colon and Rectum	504	8.8	Brain and Other CNS	70	1.2
Ages 45 to 64					
	Cases	**Rate**		**Deaths**	**Rate**
Female Breast	17,017	337.4	Lung and Bronchus	2,438	48.3
Lung and Bronchus	4,479	88.8	Female Breast	1,487	29.5
Corpus Uteri	3,019	59.9	Colon and Rectum	663	13.1
Colon and Rectum	2,488	49.3	Pancreas	498	9.9
Melanoma (Skin)	2,235	44.3	Ovary	442	8.8
Ages 65 and above					
	Cases	**Rate**		**Deaths**	**Rate**
Female Breast	18,480	540.4	Lung and Bronchus	7,218	211.1
Lung and Bronchus	10,705	313.0	Female Breast	3,087	90.3
Colon and Rectum	4,624	135.2	Colon and Rectum	1,934	56.6
Corpus Uteri	2,857	83.5	Pancreas	1,770	51.8
Melanoma (Skin)	2,408	70.4	Ovary	1,201	35.1

Rates are per 100,000 persons and are age-adjsuted to the 2000 U.S. Census.

Cancers of the urinary bladder and female breast include *in situ* cases. Brain and other Central Nervous System cancer excludes benign cases.

** Cancer incidence rates for cell sizes with fewer than 16 cases of cancer and Cancer mortality rates based on cancer deaths less than 16 are suppressed as they are not stable.

Rates are calculated using the bridged-race population estimates obtained from the National Center for Health Statistics available online at www.cdc.gov/nchs/nvss/bridged_race/data_documentation.htm#vintage2018.

Table 12 (continued): 2013 – 2017 Top Five Cancer Incidence and Mortality Sites by Age Group, Race and Gender

Minority Males

Incidence			Mortality		
Ages 0 to 19					
	Cases	**Rate**		**Deaths**	**Rate**
Brain and Other CNS	62	3.0	Brain and Other CNS	14	**
Leukemia	60	2.9	Leukemia	7	**
Hodgkin Disease	28	1.3	Endocrine	5	**
Non-Hodgkin Lymphoma	27	1.3	Bone	4	**
Bone	22	1.0	Kidney	3	**
Ages 20 to 44					
	Cases	**Rate**		**Deaths**	**Rate**
Colon and Rectum	197	8.3	Colon and Rectum	49	2.1
Non-Hodgkin Lymphoma	158	6.6	Lung and Bronchus	32	1.3
Kidney	126	5.3	Leukemia	30	1.3
Testes	101	4.2	Brain and Other CNS	25	1.0
Hodgkin Disease	94	3.9	Stomach	14	**
Ages 45 to 64					
	Cases	**Rate**		**Deaths**	**Rate**
Prostate	4,967	323.9	Lung and Bronchus	1,144	74.6
Lung and Bronchus	1,795	117.1	Liver	442	28.8
Colon and Rectum	1,338	87.3	Colon and Rectum	430	28.0
Kidney	730	47.6	Pancreas	320	20.9
Liver	652	42.5	Prostate	215	14.0
Ages 65 and above					
	Cases	**Rate**		**Deaths**	**Rate**
Prostate	4,758	824.4	Lung and Bronchus	2,014	348.9
Lung and Bronchus	2,675	463.5	Prostate	1,140	197.5
Colon and Rectum	1,129	195.6	Colon and Rectum	573	99.3
Urinary Bladder	624	108.1	Pancreas	430	74.5
Kidney	581	100.7	Liver	286	49.6

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Rates are per 100,000 persons and are age-adjsuted to the 2000 U.S. Census.
Cancers of the urinary bladder and female breast include *in situ* cases. Brain and other Central Nervous System cancer excludes benign cases.
** Cancer incidence rates for cell sizes with fewer than 16 cases of cancer and Cancer mortality rates based on cancer deaths less than 16 are suppressed as they are not stable.
Rates are calculated using the bridged-race population estimates obtained from the National Center for Health Statistics available online at www.cdc.gov/nchs/nvss/bridged_race/data_documentation.htm#vintage2018.

Table 12 (continued): 2013 – 2017 Top Five Cancer Incidence and Mortality Sites by Age, Race, and Gender

Minority Females

Incidence

Ages 0 to 19

	Cases	Rate
Brain and Other CNS	59	2.9
Endocrine	33	1.6
Leukemia	29	1.4
Kidney	22	1.1
Hodgkin Disease	19	0.9

Ages 20 to 44

	Cases	Rate
Female Breast	1,566	59.9
Endocrine	402	15.4
Colon and Rectum	201	7.7
Cervix Uteri	198	7.6
Corpus Uteri	166	6.4

Ages 45 to 64

	Cases	Rate
Female Breast	6,096	333.0
Lung and Bronchus	1,322	72.2
Colon and Rectum	1,155	63.1
Corpus Uteri	944	51.6
Endocrine	529	28.9

Ages 65 and above

	Cases	Rate
Female Breast	4,554	530.7
Lung and Bronchus	1,949	227.1
Colon and Rectum	1,257	146.5
Corpus Uteri	908	105.8
Pancreas	634	73.9

Mortality

Ages 0 to 19

	Deaths	Rate
Leukemia	10	**
Brain and Other CNS	7	**
Bone	5	**
Endocrine	4	**
Soft Tissue	3	**

Ages 20 to 44

	Deaths	Rate
Female Breast	186	7.1
Colon and Rectum	45	1.7
Cervix Uteri	28	1.1
Lung and Bronchus	24	0.9
Brain and Other CNS	23	0.9

Ages 45 to 64

	Deaths	Rate
Female Breast	835	45.6
Lung and Bronchus	739	40.4
Colon and Rectum	324	17.7
Pancreas	255	13.9
Corpus Uteri	174	9.5

Ages 65 and above

	Deaths	Rate
Lung and Bronchus	1,294	150.8
Female Breast	863	100.6
Colon and Rectum	618	72.0
Pancreas	547	63.7
Corpus Uteri	367	42.8

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Rates are per 100,000 persons and are age-adjsuted to the 2000 U.S Census.
Cancers of the urinary bladder and female breast include *in situ* cases. Brain and other Central Nervous System cancer excludes benign cases.
** Cancer incidence rates for cell sizes with fewer than 16 cases of cancer and Cancer mortality rates based on cancer deaths less than 16 are suppressed as they are not stable.
Rates are calculated using the bridged-race population estimates obtained from the National Center for Health Statistics available online at www.cdc.gov/nchs/nvss/bridged_race/data_documentation.htm#vintage2018.

Table 13: 2017 Cancer Incidence and Mortality by Race and Ethnicity

	Incidence				Mortality			
	Non-Hispanic Whites		Non-Hispanic Blacks		Non-Hispanic Whites		Non-Hispanic Blacks	
	Cases	Rate	Cases	Rate	Deaths	Rate	Deaths	Rate
All Cancers	43,742	474.9	11,013	462.4	14,686	154.8	4,007	180.0
Oral Cavity	1,249	13.5	212	8.6	246	2.6	69	2.9
Esophagus	435	4.5	90	3.8	361	3.7	73	3.0
Stomach	483	5.2	218	9.9	200	2.1	120	5.7
Colon and Rectum	3,073	34.2	905	39.2	1,077	11.6	378	17.3
Liver	817	8.4	217	8.3	578	5.9	175	6.8
Gallbladder	67	0.7	45	1.8	57	0.6	24	1.1
Pancreas	1,204	12.5	381	16.6	1,010	10.5	290	12.5
Larynx	370	3.8	128	5.1	83	0.8	49	2.1
Lung and Bronchus	6,450	65.7	1,360	57.3	4,216	43.5	907	40.6
Bone	80	1.1	19	0.8	27	0.3	7	**
Soft Tissue	298	3.4	76	3.5	107	1.2	48	2.1
Melanoma (Skin)	2,813	32.2	15	**	237	2.6	12	**
Female Breast	7,710	163.3	2,166	160.8	1,034	20.4	356	27.0
Cervix Uteri	217	6.0	84	6.4	69	1.7	40	2.9
Uterus (Corpus, NOS)	1,248	25.1	381	26.7	243	4.6	120	8.5
Ovary	474	10.0	86	6.8	351	6.7	71	5.3
Prostate	4,846	102.9	1,855	171.0	608	15.7	276	37.8
Testes	194	6.5	17	1.7	7	**	2	**
Urinary Bladder	2,116	22.2	305	13.5	391	4.1	59	3.0
Kidney	1,556	17.0	474	19.2	355	3.8	90	4.2
Endocrine	903	12.3	200	8.7	68	0.7	21	0.9
Multiple Myeloma	554	5.7	352	15.1	271	2.8	145	7.0
Leukemia	1,165	12.8	238	10.7	546	6.0	107	5.0
Brain and Other CNS	542	6.8	82	3.7	425	4.8	66	3.0
Hodgkin Disease	184	2.6	74	3.3	27	0.3	8	**
Non-Hodgkin Lymphoma	1,562	17.0	316	13.6	486	5.2	87	4.0
Other Cancers	3,132	34.7	717	31.5	1,606	17.0	407	18.3

Rates are per 100,000 persons and are age-adjsuted to the 2000 U.S Census.
Cancers of the urinary bladder and female breast include *in situ* cases. Brain and other Central Nervous System cancer excludes benign cases
*Cell sizes with fewer then five cases are suppressed for confidentiality.

** Cancer incidence rates for cell sizes with fewer than 16 cases of cancer and Cancer mortality rates based on cancer deaths less than 16 are suppressed as they are not stable.
Rates are calculated using the bridged-race population estimates obtained from the National Center for Health Statistics available online at www.cdc.gov/nchs/nvss/bridged_race/data_documentation.htm#vintage2018.

Hispanic ethnicity is independent of race. Hispanic ethnicity is determined by self-report and the National Hispanic Identification Algorithm available online at www.naaccr.org/LinkClick.aspx?fileticket=iTvgbzLrx8I%3d&tabid=118&mid=458.
Approximately 17 percent of patients of American Indian race are reported as a different race. Therefore, cancer incidence for American Indians is assumed to be underestimated (Yankaskas BC, Knight K, Fleg A, Rao, C. Misclassification of American Indian Race in State Cancer Data among Non-federally Recognized Indians in North Carolina. *Journal of Registry Management*. 2009;36(1):7-11.).
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Table 13 (continued): 2017 Cancer Incidence and Mortality by Race and Ethnicity

	Incidence				Mortality			
	Non-Hispanic Other Races		Hispanics		Non-Hispanic Other Races		Hispanics	
	Cases	Rate	Cases	Rate	Deaths	Rate	Deaths	Rate
All Cancers	2,521	672.7	1,663	372.5	391	117.8	390	116.5
Oral Cavity	61	15.9	32	7.8	9	**	4	**
Esophagus	8	**	11	**	4	**	8	**
Stomach	39	11.0	46	8.7	12	**	17	4.7
Colon and Rectum	185	47.2	128	33.5	34	10.5	40	10.9
Liver	56	15.0	36	9.8	40	11.1	25	7.3
Gallbladder	*	*	6	**	1	**	4	**
Pancreas	37	11.8	37	11.6	26	8.6	38	12.6
Larynx	12	**	8	**	4	**	1	**
Lung and Bronchus	181	53.3	103	30.7	107	32.4	56	19.6
Bone	*	*	8	**	2	**	4	**
Soft Tissue	15	**	16	1.8	4	**	5	**
Melanoma (Skin)	201	53.9	32	5.3	0	0.0	3	**
Female Breast	393	181.5	356	140.8	32	14.7	29	14.6
Cervix Uteri	32	13.6	31	9.3	3	**	3	**
Uterus (Corpus, NOS)	68	31.0	80	32.7	10	**	9	**
Ovary	23	11.3	30	10.5	9	**	9	**
Prostate	591	354.4	140	76.7	9	**	18	18.0
Testes	*	*	30	5.5	0	0.0	1	**
Urinary Bladder	67	20.3	29	8.1	7	**	7	**
Kidney	61	14.7	76	19.0	7	**	6	**
Endocrine	78	17.5	88	12.4	1	**	4	**
Multiple Myeloma	25	8.2	33	9.1	8	**	7	**
Leukemia	80	22.5	47	10.3	13	**	18	5.6
Brain and Other CNS	24	5.6	29	3.9	13	**	13	**
Hodgkin Disease	6	**	16	2.4	0	0.0	1	**
Non-Hodgkin Lymphoma	69	20.5	74	18.2	9	**	15	**
Other Cancers	202	57.2	141	33.3	27	8.9	45	11.6

Rates are per 100,000 persons and are age-adjsuted to the 2000 U.S Census.
Cancers of the urinary bladder and female breast include *in situ* cases. Brain and other Central Nervous System cancer excludes benign cases
*Cell sizes with fewer then five cases are suppressed for confidentiality.
** Cancer incidence rates for cell sizes with fewer than 16 cases of cancer and Cancer mortality rates based on cancer deaths less than 16 are suppressed as they are not stable.
Rates are calculated using the bridged-race population estimates obtained from the National Center for Health Statistics available online at www.cdc.gov/nchs/nvss/bridged_race/data_documentation.htm#vintage2018.

Hispanic ethnicity is independent of race. Hispanic ethnicity is determined by self-report and the National Hispanic Identification Algorithm available online at www.naaccr.org/LinkClick.aspx?fileticket=iTvgbzLrx8I%3d&tabid=118&mid=458.
Approximately 17 percent of patients of American Indian race are reported as a different race. Therefore, cancer incidence for American Indians is assumed to be underestimated (Yankaskas BC, Knight K, Fleg A, Rao, C. Misclassification of American Indian Race in State Cancer Data among Non-federally Recognized Indians in North Carolina. *Journal of Registry Management*. 2009;36(1):7-11.).
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Table 14: 2017 Top Ten Cancer Incidence and Mortality Sites by Race and Ethnicity

Non-Hispanic Whites

Incidence			Mortality		
	Cases	**Rate**		**Deaths**	**Rate**
Female Breast	7,710	163.3	Lung and Bronchus	4,216	43.5
Prostate	4,846	102.9	Female Breast	1,034	20.4
Lung and Bronchus	6,450	65.7	Prostate	608	15.7
Colon and Rectum	3,073	34.2	Colon and Rectum	1,077	11.6
Melanoma (Skin)	2,813	32.2	Pancreas	1,010	10.5
Corpus Uteri	1,248	25.1	Ovary	351	6.7
Urinary Bladder	2,116	22.2	Leukemia	546	6.0
Non-Hodgkin Lymphoma	1,562	17.0	Liver	578	5.9
Kidney	1,556	17.0	Non-Hodgkin Lymphoma	486	5.2
Oral Cavity	1,249	13.5	Brain and Other CNS	425	4.8

Non-Hispanic Blacks

Incidence			Mortality		
	Cases	**Rate**		**Deaths**	**Rate**
Prostate	1,855	171.0	Lung and Bronchus	907	40.6
Female Breast	2,166	160.8	Prostate	276	37.8
Lung and Bronchus	1,360	57.3	Female Breast	356	27.0
Colon and Rectum	905	39.2	Colon and Rectum	378	17.3
Corpus Uteri	381	26.7	Pancreas	290	12.5
Kidney	474	19.2	Corpus Uteri	120	8.5
Pancreas	381	16.6	Multiple Myeloma	145	7.0
Multiple Myeloma	352	15.1	Liver	175	6.8
Non-Hodgkin Lymphoma	316	13.6	Stomach	120	5.7
Urinary Bladder	305	13.5	Ovary	71	5.3

Rates are per 100,000 persons and are age-adjsuted to the 2000 U.S Census.
Cancers of the urinary bladder and female breast include *in situ* cases. Brain and other Central Nervous System cancer excludes benign cases
*Cell sizes with fewer then five cases are suppressed for confidentiality.
** Cancer incidence rates for cell sizes with fewer than 16 cases of cancer and Cancer mortality rates based on cancer deaths less than 16 are suppressed as they are not stable.
Rates are calculated using the bridged-race population estimates obtained from the National Center for Health Statistics available online at www.cdc.gov/nchs/nvss/bridged_race/data_documentation.htm#vintage2018.
Hispanic ethnicity is independent of race. Hispanic ethnicity is determined by self-report and the National Hispanic Identification Algorithm available online at www.naaccr.org/LinkClick.aspx?fileticket=iTvgbzLrx8I%3d&tabid=118&mid=458.
Approximately 17 percent of patients of American Indian race are reported as a different race. Therefore, cancer incidence for American Indians is assumed to be underestimated (Yankaskas BC, Knight K, Fleg A, Rao, C. Misclassification of American Indian Race in State Cancer Data among Non-federally Recognized Indians in North Carolina. *Journal of Registry Management*. 2009;36(1):7-11.).

Table 14 (continued): 2017 Top Ten Cancer Incidence and Mortality Sites by Race and Ethnicity

Non-Hispanic Other Races

Incidence			Mortality		
	Cases	Rate		Deaths	Rate
Prostate	591	354.4	Lung and Bronchus	107	32.4
Female Breast	393	181.5	Female Breast	32	14.7
Melanoma (Skin)	201	53.9	Liver	40	11.1
Lung and Bronchus	181	53.3	Colon and Rectum	34	10.5
Colon and Rectum	185	47.2	Prostate	9	**
Corpus Uteri	68	31.0	Pancreas	26	8.6
Leukemia	80	22.5	Ovary	9	**
Non-Hodgkin Lymphoma	69	20.5	Leukemia	13	**
Urinary Bladder	67	20.3	Stomach	12	**
Endocrine	78	17.5	Brain and Other CNS	13	**

Hispanics

Incidence			Mortality		
	Cases	Rate		Deaths	Rate
Female Breast	356	140.8	Lung and Bronchus	56	19.6
Prostate	140	76.7	Prostate	18	18.0
Colon and Rectum	128	33.5	Female Breast	29	14.6
Corpus Uteri	80	32.7	Pancreas	38	12.6
Lung and Bronchus	103	30.7	Colon and Rectum	40	10.9
Kidney	76	19.0	Liver	25	7.3
Non-Hodgkin Lymphoma	74	18.2	Leukemia	18	5.6
Endocrine	88	12.4	Corpus Uteri	9	**
Pancreas	37	11.6	Ovary	9	**
Ovary	30	10.5	Stomach	17	4.7

Rates are per 100,000 persons and are age-adjsuted to the 2000 U.S Census.
Cancers of the urinary bladder and female breast include *in situ* cases. Brain and other Central Nervous System cancer excludes benign cases
*Cell sizes with fewer then five cases are suppressed for confidentiality.
** Cancer incidence rates for cell sizes with fewer than 16 cases of cancer and Cancer mortality rates based on cancer deaths less than 16 are suppressed as they are not stable.
Rates are calculated using the bridged-race population estimates obtained from the National Center for Health Statistics available online at www.cdc.gov/nchs/nvss/bridged_race/data_documentation.htm#vintage2018.
Hispanic ethnicity is independent of race. Hispanic ethnicity is determined by self-report and the National Hispanic Identification Algorithm available online at www.naaccr.org/LinkClick.aspx?fileticket=iTvgbzLrx8I%3d&tabid=118&mid=458.
Approximately 17 percent of patients of American Indian race are reported as a different race. Therefore, cancer incidence for American Indians is assumed to be underestimated (Yankaskas BC, Knight K, Fleg A, Rao, C. Misclassification of American Indian Race in State Cancer Data among Non-federally Recognized Indians in North Carolina. *Journal of Registry Management*. 2009;36(1):7-11.).

Table 15: 2017 Cancer Incidence and Mortality Median Age

Incidence

	All	Males	Females	Non-Hispanic Whites	Non-Hispanic Blacks	Non-Hispanic Others	Hispanics
All Cancers	66	67	65	67	64	63	57
Oral Cavity	63	62	67	64	61	59	58.5
Esophagus	68	67	70	69	65	61.5	72
Stomach	68	68	69	69	67	62	51.5
Colon and Rectum	66	65	67	67	63	61	61.5
Liver	65	64	67	66	63	63.5	65
Gallbladder	68	72	67.5	71	65	*	67
Pancreas	69	68	70	70	67	71	67
Larynx	66	67	64	67	64	58	72.5
Lung and Bronchus	70	70	69	70	67	68	66
Bone	48	50	44.5	54.5	43	*	12.5
Soft Tissue	65	66.5	64	68	58.5	72	39
Melanoma (Skin)	65	68	62	66	64	61	52.5
Female Breast	63	.	63	64	61	57	54
Cervix Uteri	51	.	51	51	60	48.5	38
Uterus (Corpus, NOS)	63	.	63	64	63	61.5	56
Ovary	63	.	63	64	62	56	47
Prostate	67	67	.	68	64	66	63.5
Testes	34	34	.	35	32	*	31.5
Urinary Bladder	72	72	72	73	70	69	65
Kidney	64	64	65	66	61	59	62
Endocrine	51	55	49.5	53	51	44	42
Multiple Myeloma	68	67	69	69	67	73	58
Leukemia	69	68	69	70	63	67	52
Brain and Other CNS	60	60	60	63	48.5	49	34
Hodgkin Disease	43.5	45	39.5	46	40	36	42.5
Non-Hodgkin Lymphoma	68	67	69	69	62	69	58
Other Cancers	69	69	69	70	65	63.5	57

Cancers of the urinary bladder and female breast include *in situ* cases.
Brain and other central nervous system cancer excludes benign cases.
*Median ages based on incidence counts less than five are suppressed.

Table 15 (continued): 2017 Cancer Incidence and Mortality Median Age

	Mortality						
	All	**Males**	**Females**	**Non-Hispanic Whites**	**Non-Hispanic Blacks**	**Non-Hispanic Others**	**Hispanics**
All Cancers	71	71	71	73	68	67	65
Oral Cavity	69	66	75	69	65	70	45
Esophagus	69	68	69	69	65	66	66.5
Stomach	70	69	73	71	70	67.5	65
Colon and Rectum	71	69	74	72	68	64	60
Liver	66	65	69	68	65	62.5	66
Gallbladder	73.5	74	72	75	67.5	75	75.5
Pancreas	71	70	72	72	67	70	69
Larynx	69	69	67	69	67	77	64
Lung and Bronchus	72	72	72	72	70	69	68
Bone	60	60	63	69	60	32.5	31
Soft Tissue	66	67	63	69	59.5	50	57
Melanoma (Skin)	70	72	68	70	65.5	.	65
Female Breast	68	.	68	70	63.5	60	64.5
Cervix Uteri	59	.	59	58	60.5	61	57
Uterus (Corpus, NOS)	69	.	69	70	69	59.5	67
Ovary	70	.	70	72	66	62	59
Prostate	78	78	.	80	75	80	76
Testes	39	39	.	40	46	.	37
Urinary Bladder	77	76	79	77	75	77	70
Kidney	72.5	71	74	73	72	68	52.5
Endocrine	71	70.5	71	73	58	74	62
Multiple Myeloma	75	73	78	76	74	70.5	67
Leukemia	74	73	75.5	75	67	69	69
Brain and Other CNS	65	64.5	67	67	58	57	46
Hodgkin Disease	70.5	69	77	72	64.5	.	81
Non-Hodgkin Lymphoma	77	76	78	78	70	68	62
Other Cancers	73	72	73	74	68	72	62

Cancers of the urinary bladder and female breast include *in situ* cases.
Brain and other central nervous system cancer excludes benign cases.
*Median ages based on incidence counts less than five are suppressed.

Figure 1a: 2006 – 2017 Colorectal Cancer Incidence Trends by Gender and Race

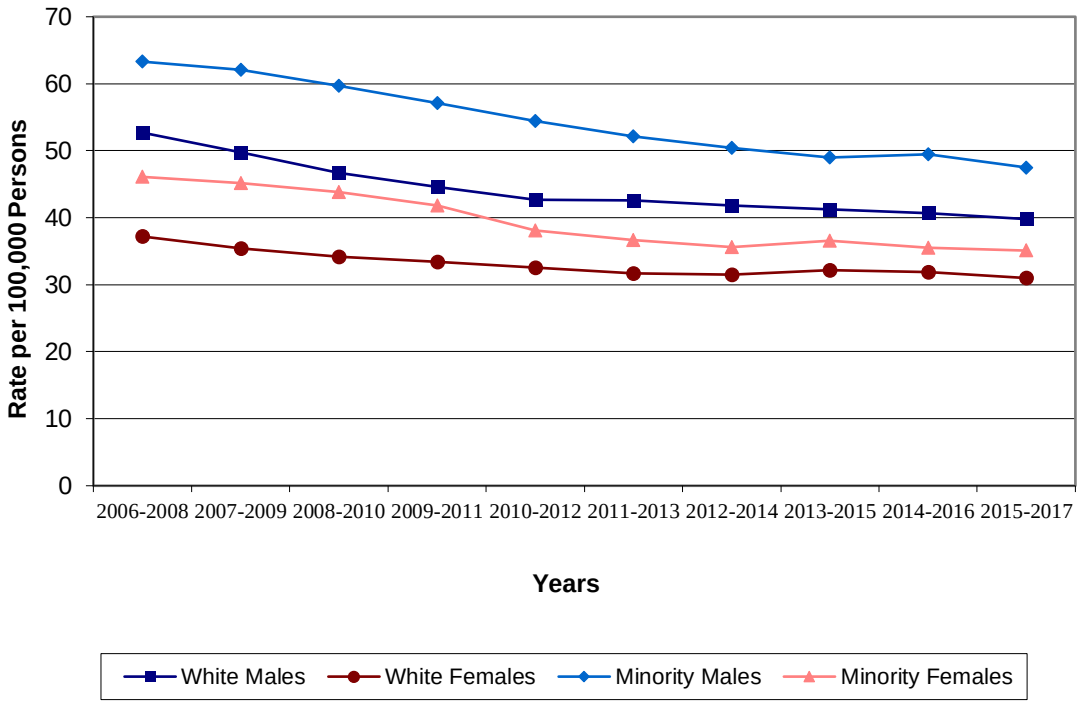


Figure 1b: 2006 – 2017 Colorectal Cancer Mortality Trends by Gender and Race

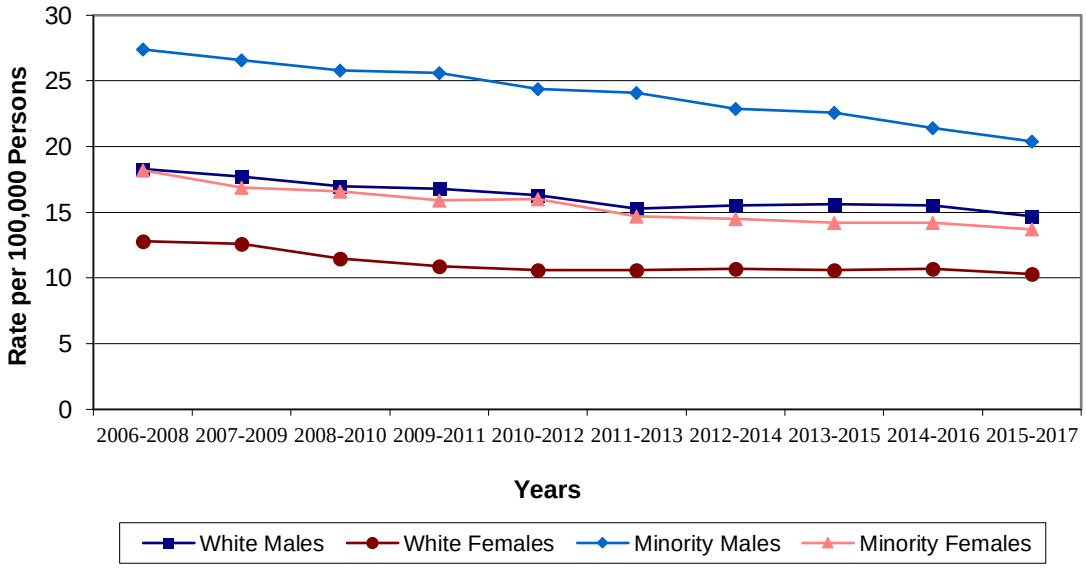


Figure 2a: 2006 – 2017 Lung and Bronchus Cancer Incidence Trends by Gender and Race

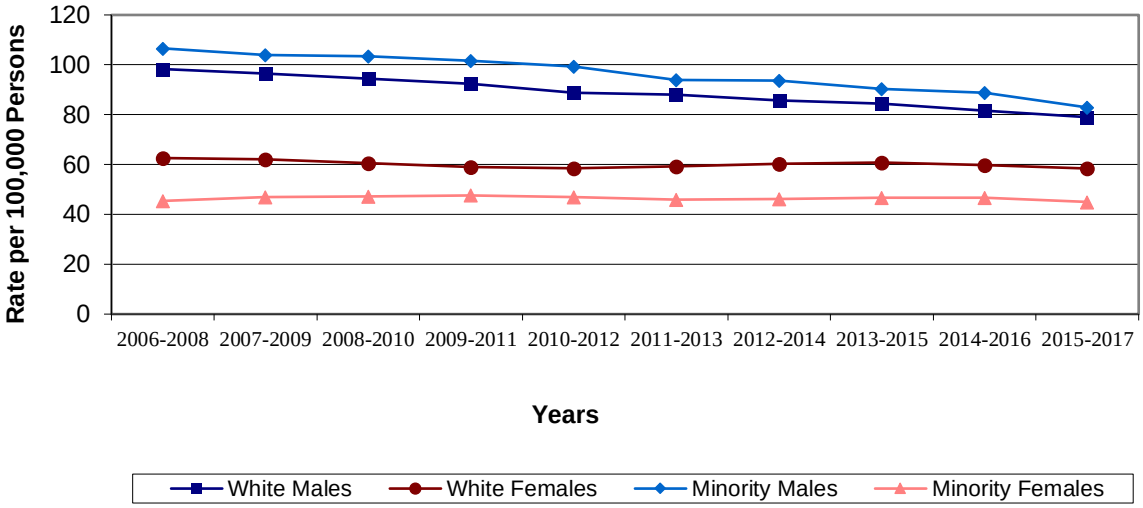


Figure 2b: 2006 – 20117 Lung and Bronchus Cancer Mortality Trends by Gender and Race

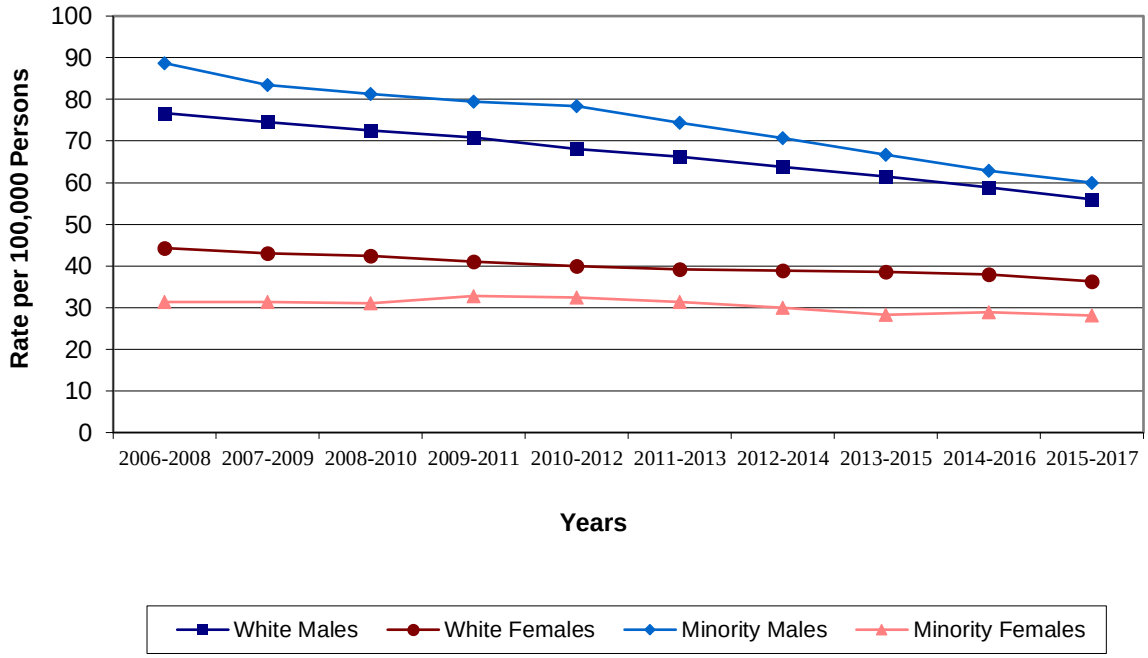


Figure 3a: 2006 – 2017 Female Breast Cancer Incidence Trends by Race

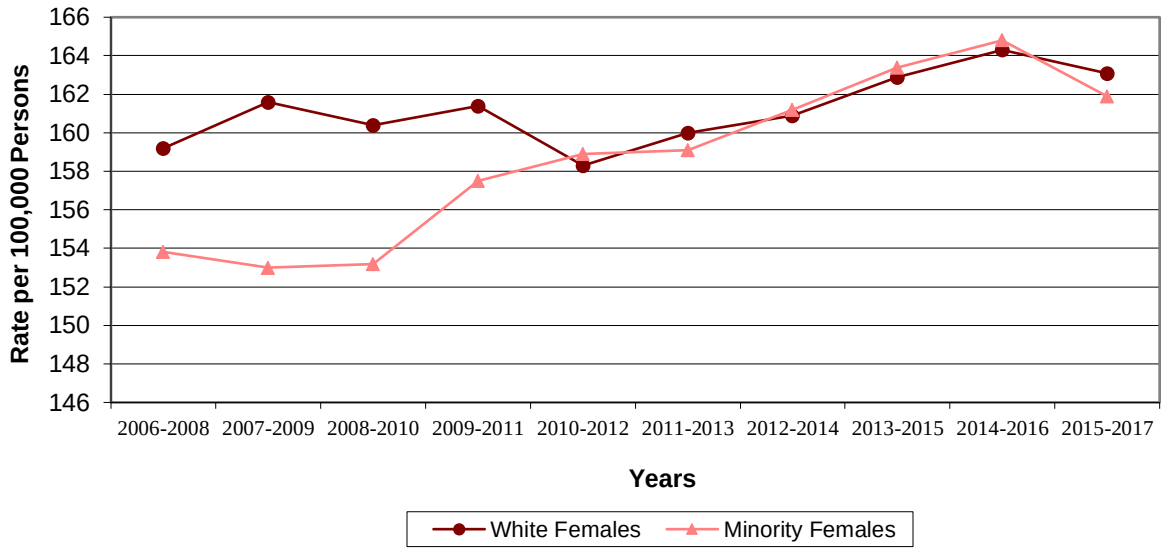


Figure 3b: 2006 – 2017 Female Breast Cancer Mortality Trends by Race

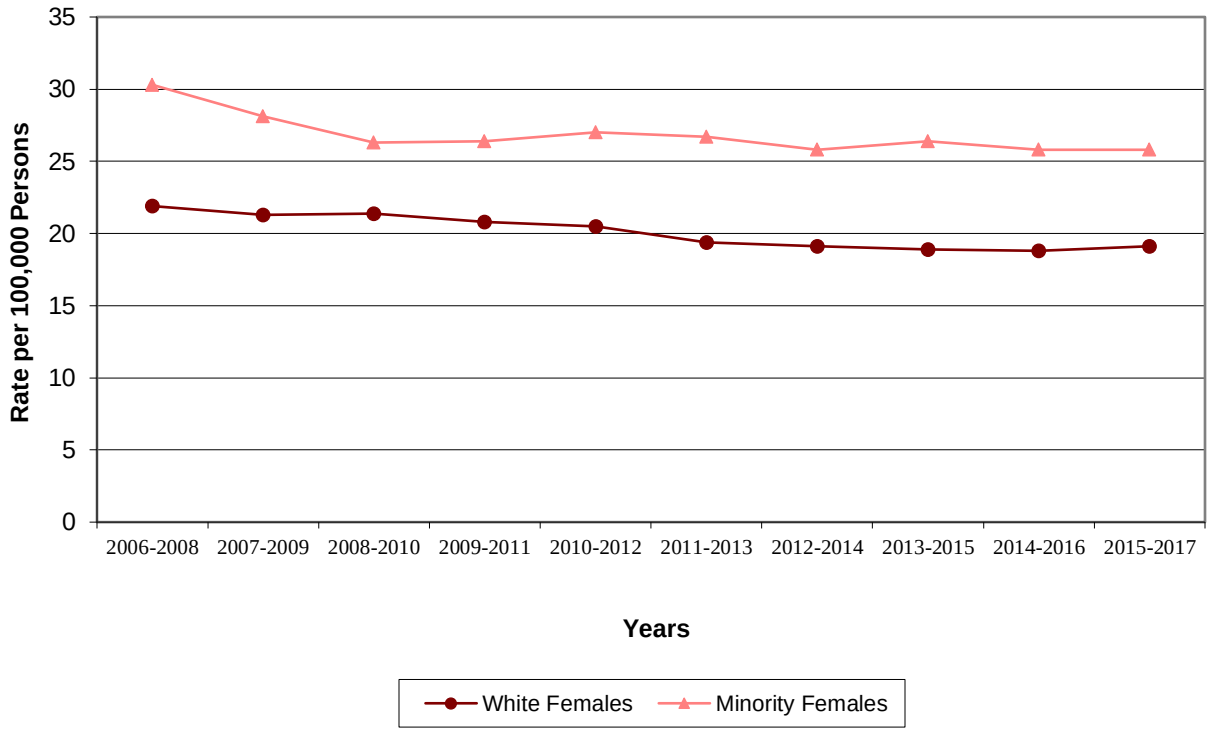


Figure 4a: 2006 – 2017 Prostate Cancer Incidence Trends by Race

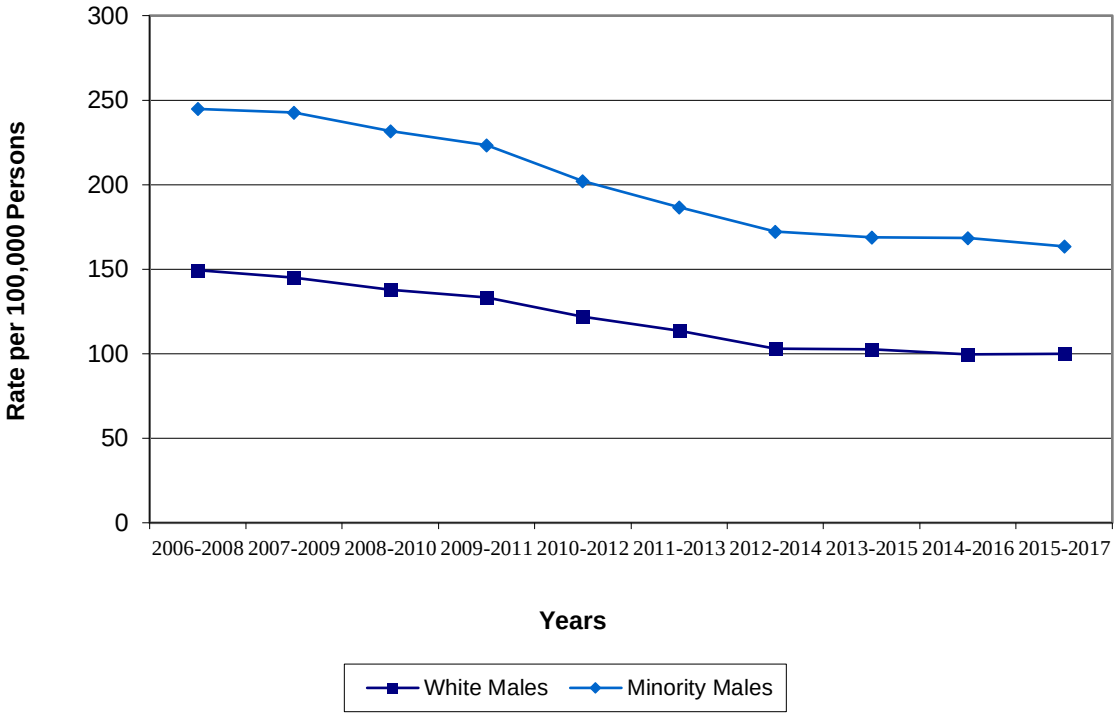


Figure 4b: 2006 – 2017 Prostate Cancer Mortality Trends by Race

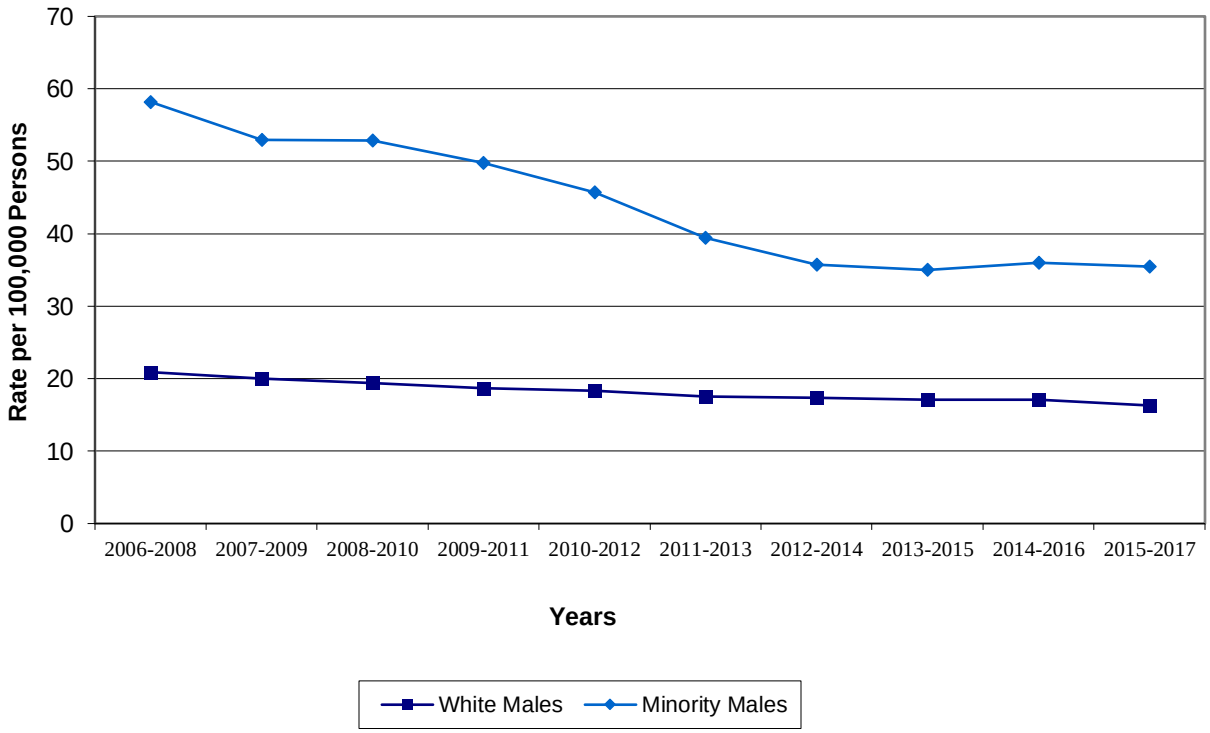


Figure 5a: 2006– 2017 Cervical Cancer Incidence Trends by Race

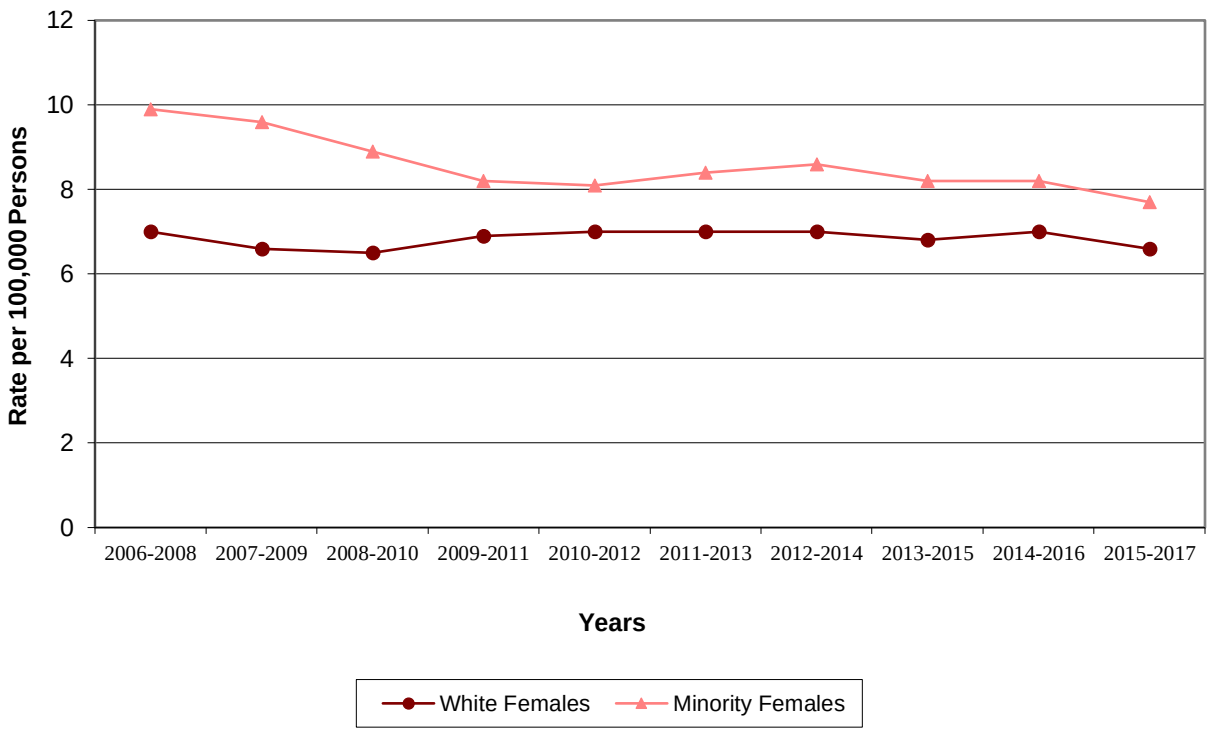


Figure 5b: 2006 – 2017 Cervical Cancer Mortality Trends by Race

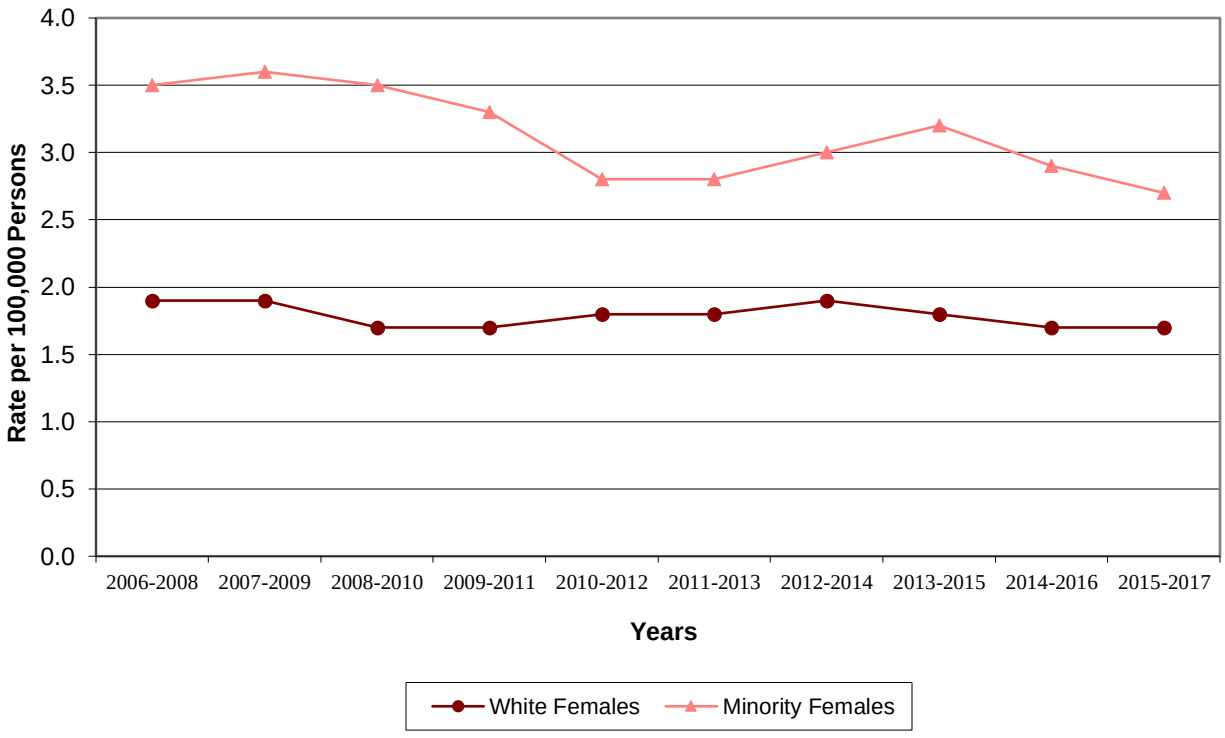


Figure 6: 2006 – 2017 Oral Cavity Cancer Incidence Trends by Gender and Race

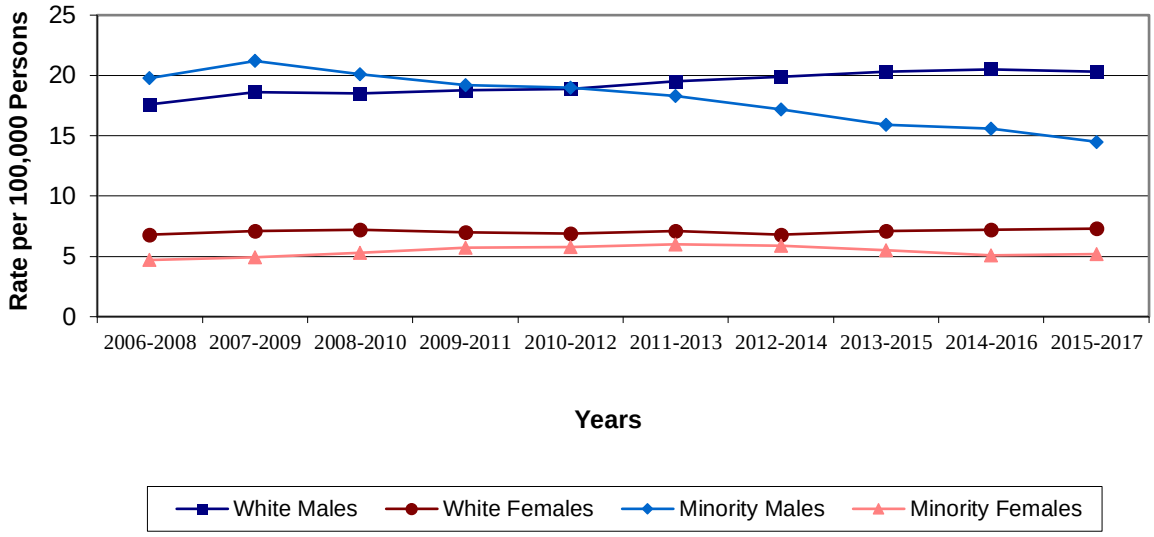


Figure 7: 2006 – 2017 Laryngeal Cancer Incidence Trends by Gender and Race

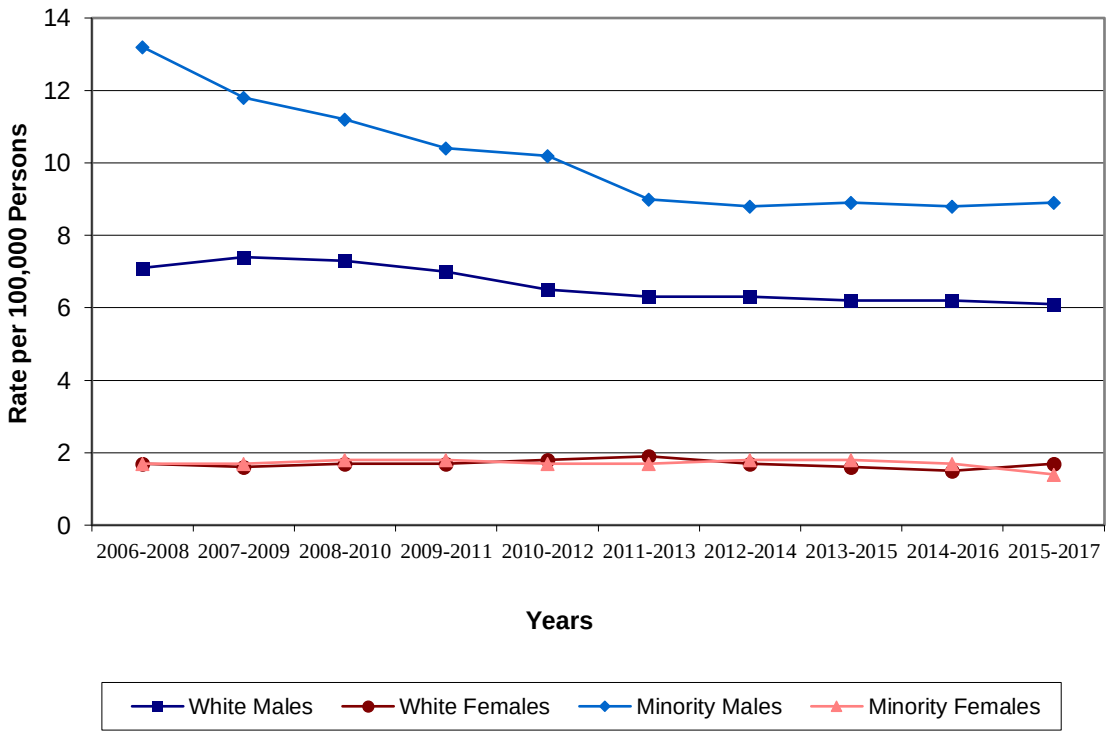


Figure 8: 2006 – 2017 Melanoma Incidence Trends by Gender and Race

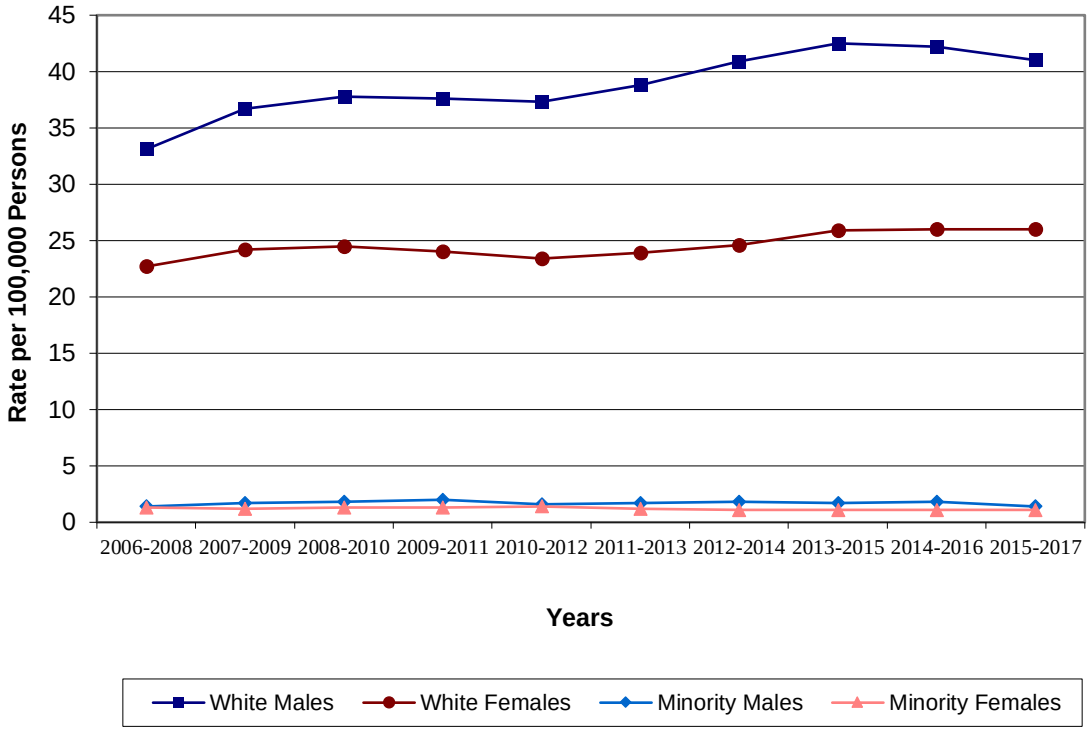


Figure 9: 2006 – 2017 Kidney Cancer Incidence Trends by Gender and Race

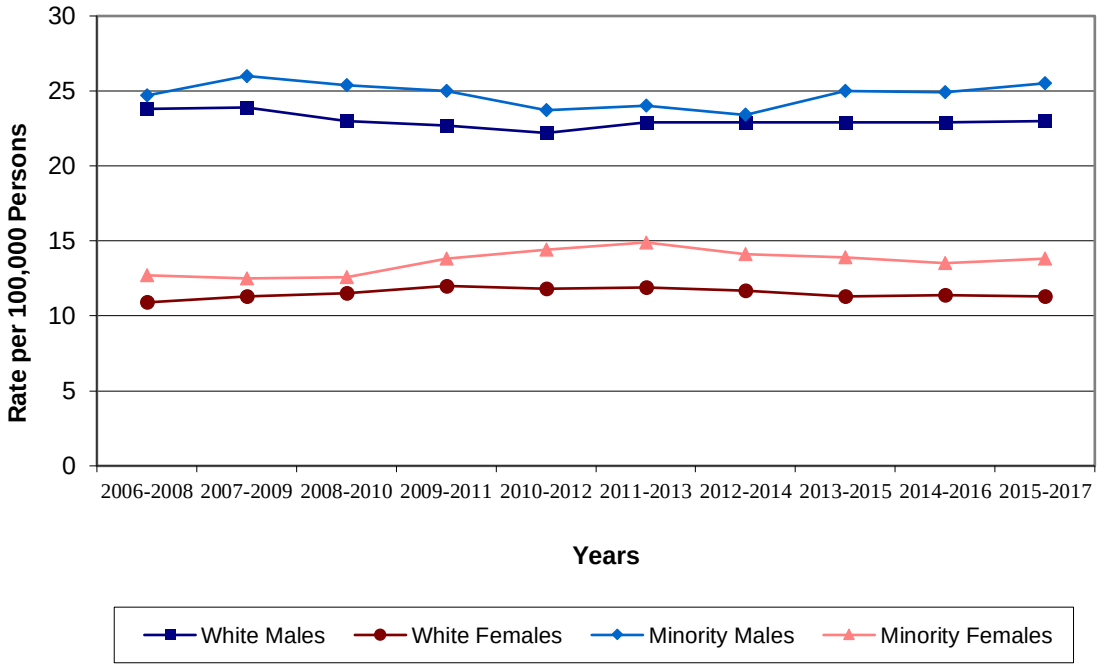


Figure 10: 2006 – 2017 Endocrine Cancer Incidence Trends by Gender and Race

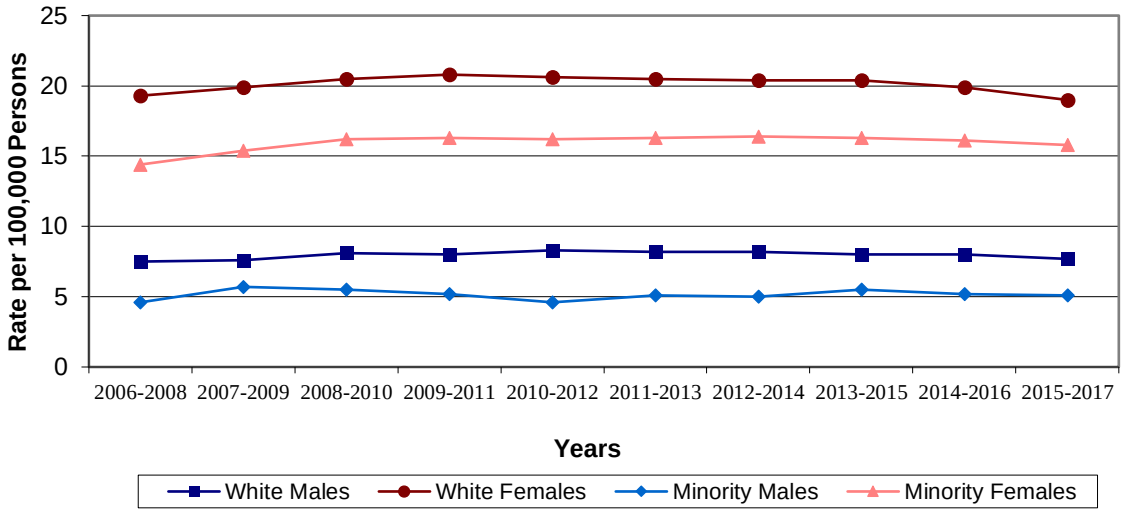


Figure 11: 2006 – 2017 Stomach Cancer Mortality Trends by Gender and Race

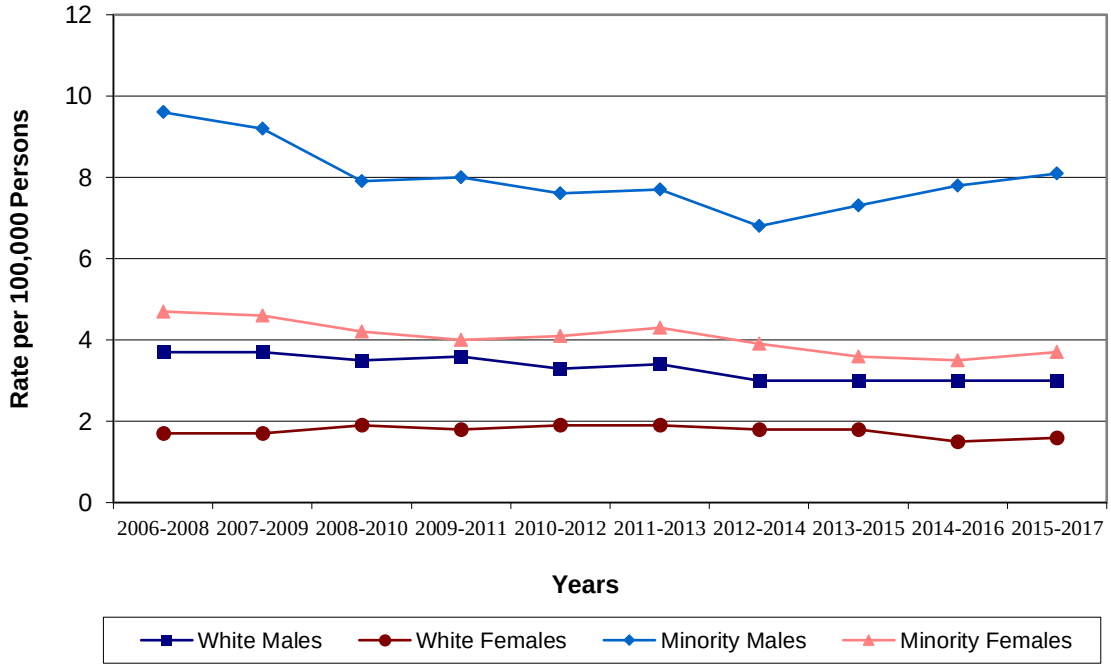


Figure 12: 2006 – 2017 Liver Cancer Mortality Trends by Gender and Race

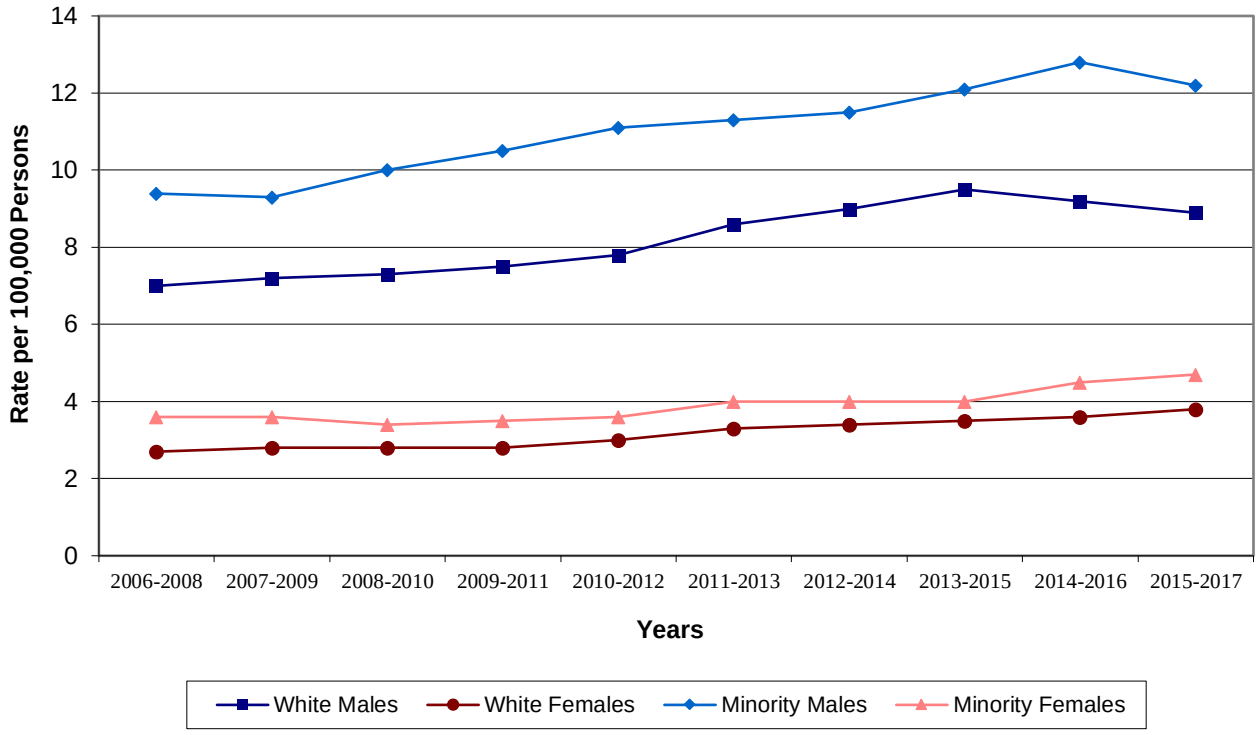


Figure 13: 2006 – 2017 Pancreatic Cancer Mortality Trends by Gender and Race

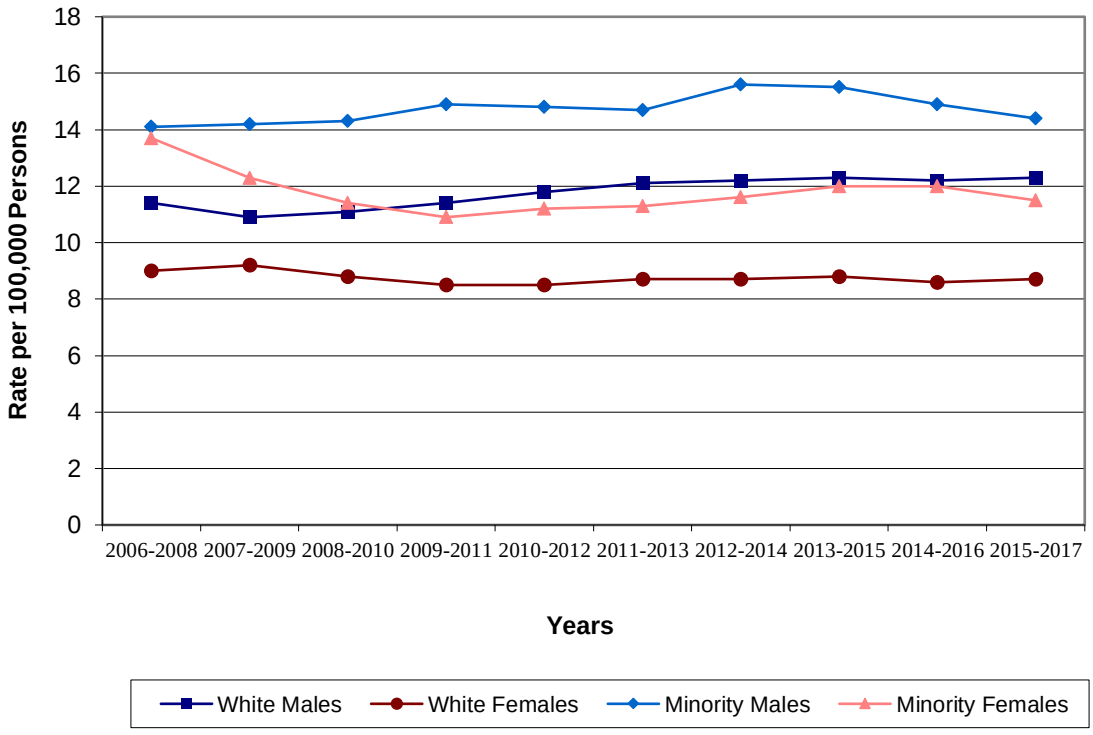
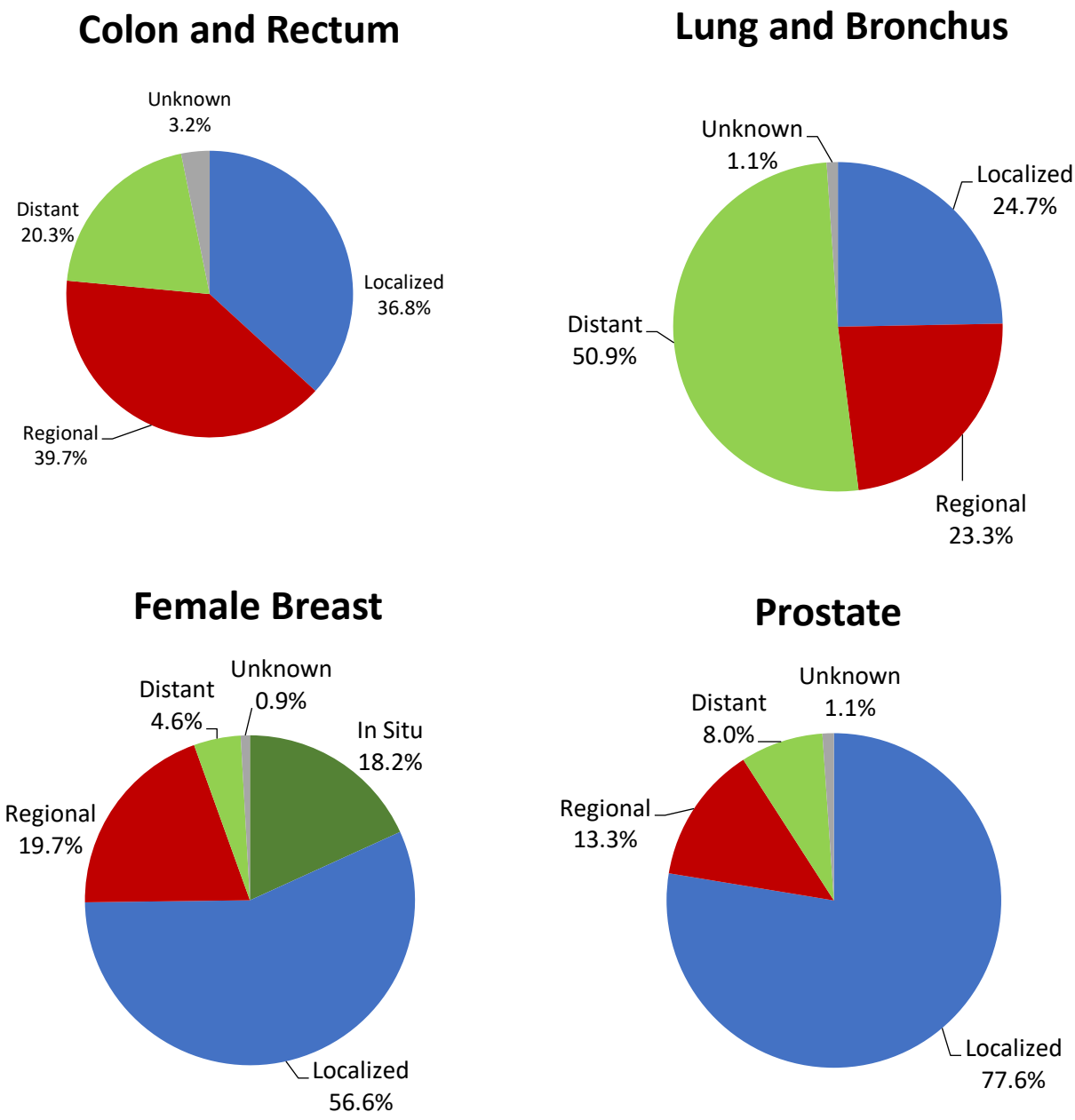


Figure 14: 2017 Percent of Top Four Cancer Cases by Stage



Appendix A: 2017 Population Estimates by Race and County

	Whites	Blacks	American Indian	Asian/ Pacific Islander	Total
North Carolina	7,384,159	2,366,357	172,539	347,745	10,270,800
Alamance	123,412	34,498	2,427	3,192	163,529
Alexander	34,091	2,426	200	429	37,146
Alleghany	10,599	253	63	108	11,023
Anson	11,979	12,289	253	357	24,878
Ashe	26,196	337	105	165	26,803
Avery	16,438	843	121	103	17,505
Beaufort	34,031	12,225	497	298	47,051
Bertie	6,968	12,003	138	165	19,274
Bladen	20,455	11,795	1,061	157	33,468
Brunswick	113,805	14,448	1,193	1,289	130,735
Buncombe	233,401	17,875	1,514	4,395	257,185
Burke	78,438	6,652	845	4,192	90,127
Cabarrus	156,458	39,584	1,629	9,053	206,724
Caldwell	76,211	4,477	517	715	81,920
Camden	8,874	1,382	59	246	10,561
Carteret	62,833	4,496	474	1,116	68,919
Caswell	14,704	7,612	170	146	22,632
Catawba	134,478	15,161	970	7,202	157,811
Chatham	59,303	9,501	865	1,579	71,248
Cherokee	26,662	569	519	230	27,980
Chowan	8,833	4,993	64	150	14,040
Clay	10,710	191	56	44	11,001
Cleveland	74,688	21,039	376	1,125	97,228
Columbus	35,742	17,614	2,226	405	55,987
Craven	75,037	23,279	825	3,613	102,754
Cumberland	176,604	135,618	6,987	12,030	331,239
Currituck	24,227	1,626	173	297	26,323
Dare	34,404	1,183	207	321	36,115
Davidson	144,091	16,919	1,350	2,953	165,313
Davie	38,667	2,989	303	410	42,369
Duplin	41,796	15,464	890	712	58,862
Durham	169,528	121,449	3,138	17,773	311,888
Edgecombe	21,196	30,908	414	239	52,757
Forsyth	254,957	106,574	3,472	10,721	375,724

Population estimates are from the bridged-race population estimates obtained from the National Center for Health Statistics available online at www.cdc.gov/nchs/nvss/bridged_race/data_documentation.htm#vintage2018.

Appendix A (continued): 2017 Population Estimates by Race and County

	Whites	Blacks	American Indian	Asian/ Pacific Islander	Total
Franklin	46,977	17,861	637	558	66,033
Gaston	175,472	39,001	1,382	3,964	219,819
Gates	7,584	3,782	81	68	11,515
Graham	7,700	85	698	51	8,534
Granville	38,702	19,607	547	518	59,374
Greene	12,436	7,875	490	179	20,980
Guilford	305,444	190,736	4,390	28,926	529,496
Halifax	20,760	27,867	2,164	491	51,282
Harnett	96,653	30,609	2,621	2,346	132,229
Haywood	59,244	981	435	376	61,036
Henderson	108,264	4,503	870	1,820	115,457
Hertford	8,732	14,662	320	212	23,926
Hoke	27,757	19,717	5,489	1,178	54,141
Hyde	3,616	1,563	45	43	5,267
Iredell	146,977	22,577	1,071	5,003	175,628
Jackson	37,272	1,174	4,251	495	43,192
Johnston	158,501	33,676	2,018	2,228	196,423
Jones	6,429	3,016	102	55	9,602
Lee	45,988	12,734	854	991	60,567
Lenoir	31,872	23,777	403	589	56,641
Lincoln	76,249	5,017	377	722	82,365
McDowell	42,258	2,007	377	522	45,164
Macon	33,290	658	291	385	34,624
Madison	20,957	395	101	124	21,577
Martin	12,669	9,829	116	162	22,776
Mecklenburg	634,129	362,725	9,484	70,973	1,077,311
Mitchell	14,566	152	139	122	14,979
Montgomery	21,155	5,412	300	480	27,347
Moore	81,692	12,691	1,065	1,784	97,232
Nash	52,767	39,155	960	1,130	94,012
New Hanover	189,546	33,367	1,415	4,329	228,657
Northampton	8,069	11,652	125	67	19,913
Onslow	152,535	34,253	2,094	5,956	194,838
Orange	112,600	18,065	977	12,318	143,960
Pamlico	9,920	2,526	100	108	12,654

Population estimates are from the bridged-race population estimates obtained from the National Center for Health Statistics available online at www.cdc.gov/nchs/nvss/bridged_race/data_documentation.htm#vintage2018.

Appendix A (continued): 2017 Population Estimates by Race and County

	Whites	Blacks	American Indian	Asian/ Pacific Islander	Total
Pasquotank	23,610	14,865	279	722	39,476
Pender	49,829	9,799	644	496	60,768
Perquimans	10,110	3,207	68	75	13,460
Person	27,792	11,018	361	224	39,395
Pitt	107,849	65,372	987	4,409	178,617
Polk	19,256	1,002	124	136	20,518
Randolph	129,051	10,112	1,665	2,321	143,149
Richmond	28,151	14,607	1,535	532	44,825
Robeson	42,286	32,644	56,462	1,198	132,590
Rockingham	71,574	17,925	597	745	90,841
Rowan	113,272	24,257	939	2,069	140,537
Rutherford	58,689	7,060	276	543	66,568
Sampson	42,915	17,427	2,422	669	63,433
Scotland	16,205	14,094	4,527	346	35,172
Stanly	52,124	7,528	278	1,521	61,451
Stokes	43,234	2,057	198	208	45,697
Surry	67,739	3,295	459	625	72,118
Swain	9,384	242	4,533	107	14,266
Transylvania	31,949	1,449	155	272	33,825
Tyrrell	2,406	1,635	41	101	4,183
Union	192,345	29,625	1,664	7,790	231,424
Vance	20,390	23,130	417	375	44,312
Wake	746,133	234,504	9,234	82,015	1,071,886
Warren	8,217	10,422	1,144	86	19,869
Washington	5,855	5,993	117	54	12,019
Watauga	52,926	1,222	231	709	55,088
Wayne	79,029	40,970	1,058	2,200	123,257
Wilkes	64,173	3,500	273	518	68,464
Wilson	46,121	33,727	568	1,151	81,567
Yadkin	35,714	1,454	258	217	37,643
Yancey	17,233	236	135	108	17,712

Population estimates are from the bridged-race population estimates obtained from the National Center for Health Statistics available online at www.cdc.gov/nchs/nvss/bridged_race/data_documentation.htm#vintage2018.

Appendix B: 2017 Population Estimates by Age Group and County

	0-19	20-44	45-64	65+	Total
North Carolina	2,580,325	3,357,037	2,705,212	1,628,226	10,270,800
Alamance	42,892	49,666	43,839	27,132	163,529
Alexander	8,285	10,842	10,685	7,334	37,146
Alleghany	2,117	2,681	3,282	2,943	11,023
Anson	5,429	8,186	6,815	4,448	24,878
Ashe	5,285	6,831	7,961	6,726	26,803
Avery	3,159	5,661	4,921	3,764	17,505
Beaufort	10,608	12,186	13,257	11,000	47,051
Bertie	3,788	5,662	5,598	4,226	19,274
Bladen	7,655	9,277	9,510	7,026	33,468
Brunswick	22,491	29,698	38,613	39,933	130,735
Buncombe	53,646	84,286	69,209	50,044	257,185
Burke	19,803	25,988	26,508	17,828	90,127
Cabarrus	58,267	66,959	54,620	26,878	206,724
Caldwell	18,498	23,064	24,494	15,864	81,920
Camden	2,691	3,059	3,140	1,671	10,561
Carteret	13,535	17,721	20,904	16,759	68,919
Caswell	4,639	6,368	6,888	4,737	22,632
Catawba	39,154	46,592	44,537	27,528	157,811
Chatham	15,830	17,787	20,617	17,014	71,248
Cherokee	5,325	6,410	8,151	8,094	27,980
Chowan	3,145	3,607	3,894	3,394	14,040
Clay	2,107	2,451	3,096	3,347	11,001
Cleveland	24,105	28,011	27,414	17,698	97,228
Columbus	13,119	16,885	14,989	10,994	55,987
Craven	24,951	35,049	23,744	19,010	102,754
Cumberland	92,007	129,230	71,557	38,445	331,239
Currituck	6,406	7,625	8,121	4,171	26,323
Dare	7,525	9,658	11,480	7,452	36,115
Davidson	40,175	47,215	48,386	29,537	165,313
Davie	9,940	11,062	12,667	8,700	42,369
Duplin	15,461	16,965	15,739	10,697	58,862
Durham	76,259	121,591	74,805	39,233	311,888
Edgecombe	13,175	15,066	14,525	9,991	52,757
Forsyth	98,651	119,448	99,176	58,449	375,724

Population estimates are from the bridged-race population estimates obtained from the National Center for Health Statistics available online at www.cdc.gov/nchs/nvss/bridged_race/data_documentation.htm#vintage2018.

Appendix B (continued): 2017 Population Estimates by Age Group and County

	0-19	20-44	45-64	65+	Total
Franklin	16,391	19,462	19,359	10,821	66,033
Gaston	54,912	69,131	60,960	34,816	219,819
Gates	2,583	2,986	3,666	2,280	11,515
Graham	1,920	2,269	2,361	1,984	8,534
Granville	13,597	17,810	18,045	9,922	59,374
Greene	4,754	7,088	5,754	3,384	20,980
Guilford	137,892	176,221	137,190	78,193	529,496
Halifax	12,070	14,313	14,627	10,272	51,282
Harnett	38,545	46,903	30,754	16,027	132,229
Haywood	12,218	16,350	17,510	14,958	61,036
Henderson	24,292	30,079	31,890	29,196	115,457
Hertford	5,696	7,013	6,626	4,591	23,926
Hoke	16,094	20,623	12,278	5,146	54,141
Hyde	977	1,668	1,570	1,052	5,267
Iredell	44,767	53,284	50,371	27,206	175,628
Jackson	10,129	14,494	10,357	8,212	43,192
Johnston	55,153	61,918	53,783	25,569	196,423
Jones	1,992	2,536	2,966	2,108	9,602
Lee	16,097	18,560	16,157	9,753	60,567
Lenoir	13,916	15,887	15,891	10,947	56,641
Lincoln	19,250	23,545	25,299	14,271	82,365
McDowell	10,095	12,993	12,982	9,094	45,164
Macon	7,220	8,283	9,387	9,734	34,624
Madison	4,676	6,221	6,024	4,656	21,577
Martin	5,112	5,816	6,743	5,105	22,776
Mecklenburg	283,762	411,870	264,333	117,346	1,077,311
Mitchell	3,047	3,907	4,331	3,694	14,979
Montgomery	6,753	7,677	7,467	5,450	27,347
Moore	22,530	26,826	24,684	23,192	97,232
Nash	23,264	27,568	26,274	16,906	94,012
New Hanover	50,685	80,788	57,861	39,323	228,657
Northampton	3,901	5,020	6,004	4,988	19,913
Onslow	55,839	90,589	30,990	17,420	194,838
Orange	36,184	52,243	36,178	19,355	143,960
Pamlico	2,153	3,049	3,783	3,669	12,654

Population estimates are from the bridged-race population estimates obtained from the National Center for Health Statistics available online at www.cdc.gov/nchs/nvss/bridged_race/data_documentation.htm#vintage2018.

Appendix B (continued): 2017 Population Estimates by Age Group and County

	0-19	20-44	45-64	65+	Total
Pasquotank	9,865	12,727	10,353	6,531	39,476
Pender	14,871	17,450	17,740	10,707	60,768
Perquimans	2,787	3,234	3,892	3,547	13,460
Person	9,175	10,973	11,740	7,507	39,395
Pitt	46,965	68,593	40,261	22,798	178,617
Polk	3,720	4,470	6,067	6,261	20,518
Randolph	35,968	41,480	40,925	24,776	143,149
Richmond	11,276	13,639	11,974	7,936	44,825
Robeson	37,802	41,799	33,487	19,502	132,590
Rockingham	20,403	24,934	27,389	18,115	90,841
Rowan	34,962	42,577	38,897	24,101	140,537
Rutherford	15,225	17,925	19,344	14,074	66,568
Sampson	17,145	18,448	16,862	10,978	63,433
Scotland	9,027	10,776	9,136	6,233	35,172
Stanly	14,760	18,121	17,091	11,479	61,451
Stokes	9,649	12,157	14,427	9,464	45,697
Surry	17,077	20,002	20,606	14,433	72,118
Swain	3,481	4,266	3,813	2,706	14,266
Transylvania	6,119	8,354	9,211	10,141	33,825
Tyrrell	853	1,415	1,100	815	4,183
Union	70,064	67,838	64,927	28,595	231,424
Vance	11,605	12,708	12,036	7,963	44,312
Wake	289,117	387,503	275,220	120,046	1,071,886
Warren	4,008	5,251	5,710	4,900	19,869
Washington	2,675	3,029	3,475	2,840	12,019
Watauga	11,858	22,371	12,303	8,556	55,088
Wayne	32,407	39,504	31,570	19,776	123,257
Wilkes	15,568	18,722	19,777	14,397	68,464
Wilson	20,960	24,097	22,049	14,461	81,567
Yadkin	8,747	10,301	11,187	7,408	37,643
Yancey	3,597	4,596	5,046	4,473	17,712

Population estimates are from the bridged-race population estimates obtained from the National Center for Health Statistics available online at www.cdc.gov/nchs/nvss/bridged_race/data_documentation.htm#vintage2018.

Appendix C: 2017 Population Estimates by Race, Sex and County

	White Males	White Females	Minority Males	Minority Females	Total
North Carolina	3,633,380	3,750,779	1,364,941	1,521,700	10,270,800
Alamance	59,083	64,329	18,620	21,497	163,529
Alexander	17,069	17,022	1,857	1,198	37,146
Alleghany	5,255	5,344	228	196	11,023
Anson	6,267	5,712	6,680	6,219	24,878
Ashe	12,853	13,343	329	278	26,803
Avery	8,709	7,729	820	247	17,505
Beaufort	16,486	17,545	5,926	7,094	47,051
Bertie	3,518	3,450	6,189	6,117	19,274
Bladen	10,060	10,395	5,878	7,135	33,468
Brunswick	54,566	59,239	8,089	8,841	130,735
Buncombe	111,740	121,661	11,570	12,214	257,185
Burke	38,571	39,867	6,477	5,212	90,127
Cabarrus	76,854	79,604	23,819	26,447	206,724
Caldwell	37,672	38,539	2,866	2,843	81,920
Camden	4,440	4,434	831	856	10,561
Carteret	30,748	32,085	3,084	3,002	68,919
Caswell	7,440	7,264	4,071	3,857	22,632
Catawba	65,678	68,800	11,400	11,933	157,811
Chatham	28,558	30,745	5,567	6,378	71,248
Cherokee	12,989	13,673	650	668	27,980
Chowan	4,265	4,568	2,394	2,813	14,040
Clay	5,199	5,511	157	134	11,001
Cleveland	36,252	38,436	10,438	12,102	97,228
Columbus	17,493	18,249	10,198	10,047	55,987
Craven	38,538	36,499	13,584	14,133	102,754
Cumberland	91,629	84,975	72,849	81,786	331,239
Currituck	12,009	12,218	1,011	1,085	26,323
Dare	16,991	17,413	842	869	36,115
Davidson	70,836	73,255	10,029	11,193	165,313
Davie	18,914	19,753	1,732	1,970	42,369
Duplin	20,757	21,039	7,873	9,193	58,862
Durham	83,052	86,476	65,949	76,411	311,888
Edgecombe	10,168	11,028	14,222	17,339	52,757
Forsyth	122,982	131,975	55,411	65,356	375,724

Population estimates are from the bridged-race population estimates obtained from the National Center for Health Statistics available online at www.cdc.gov/nchs/nvss/bridged_race/data_documentation.htm#vintage2018.

Appendix C (continued): 2017 Population Estimates by Race, Sex and County

	White Males	White Females	Minority Males	Minority Females	Total
Franklin	23,568	23,409	9,130	9,926	66,033
Gaston	85,365	90,107	20,713	23,634	219,819
Gates	3,761	3,823	1,892	2,039	11,515
Graham	3,838	3,862	412	422	8,534
Granville	19,714	18,988	10,628	10,044	59,374
Greene	6,674	5,762	4,769	3,775	20,980
Guilford	147,202	158,242	103,417	120,635	529,496
Halifax	10,119	10,641	14,537	15,985	51,282
Harnett	48,145	48,508	17,492	18,084	132,229
Haywood	28,514	30,730	913	879	61,036
Henderson	51,926	56,338	3,510	3,683	115,457
Hertford	4,494	4,238	7,222	7,972	23,926
Hoke	14,041	13,716	12,698	13,686	54,141
Hyde	1,895	1,721	989	662	5,267
Iredell	72,815	74,162	13,708	14,943	175,628
Jackson	18,271	19,001	2,958	2,962	43,192
Johnston	77,979	80,522	18,241	19,681	196,423
Jones	3,205	3,224	1,488	1,685	9,602
Lee	22,637	23,351	6,927	7,652	60,567
Lenoir	15,722	16,150	11,383	13,386	56,641
Lincoln	37,883	38,366	3,016	3,100	82,365
McDowell	20,970	21,288	1,616	1,290	45,164
Macon	16,083	17,207	726	608	34,624
Madison	10,271	10,686	341	279	21,577
Martin	6,128	6,541	4,569	5,538	22,776
Mecklenburg	311,958	322,171	205,753	237,429	1,077,311
Mitchell	7,183	7,383	204	209	14,979
Montgomery	10,406	10,749	2,932	3,260	27,347
Moore	39,554	42,138	7,144	8,396	97,232
Nash	25,800	26,967	19,239	22,006	94,012
New Hanover	91,063	98,483	18,065	21,046	228,657
Northampton	4,004	4,065	5,706	6,138	19,913
Onslow	85,640	66,895	22,450	19,853	194,838
Orange	54,056	58,544	14,598	16,762	143,960
Pamlico	4,968	4,952	1,479	1,255	12,654

Population estimates are from the bridged-race population estimates obtained from the National Center for Health Statistics available online at www.cdc.gov/nchs/nvss/bridged_race/data_documentation.htm#vintage2018.

Appendix C (continued): 2017 Population Estimates by Race, Sex and County

	White Males	White Females	Minority Males	Minority Females	Total
Pasquotank	11,635	11,975	7,684	8,182	39,476
Pender	24,887	24,942	5,386	5,553	60,768
Perquimans	4,938	5,172	1,532	1,818	13,460
Person	13,546	14,246	5,499	6,104	39,395
Pitt	52,046	55,803	32,021	38,747	178,617
Polk	9,216	10,040	650	612	20,518
Randolph	63,589	65,462	6,978	7,120	143,149
Richmond	13,838	14,313	8,058	8,616	44,825
Robeson	20,777	21,509	43,273	47,031	132,590
Rockingham	34,814	36,760	8,971	10,296	90,841
Rowan	56,146	57,126	13,305	13,960	140,537
Rutherford	28,334	30,355	3,767	4,112	66,568
Sampson	21,433	21,482	9,870	10,648	63,433
Scotland	8,025	8,180	9,421	9,546	35,172
Stanly	25,873	26,251	4,787	4,540	61,451
Stokes	21,124	22,110	1,271	1,192	45,697
Surry	32,925	34,814	2,132	2,247	72,118
Swain	4,557	4,827	2,349	2,533	14,266
Transylvania	15,339	16,610	1,000	876	33,825
Tyrrell	1,230	1,176	1,097	680	4,183
Union	95,174	97,171	18,803	20,276	231,424
Vance	9,817	10,573	10,862	13,060	44,312
Wake	367,689	378,444	153,910	171,843	1,071,886
Warren	4,125	4,092	5,702	5,950	19,869
Washington	2,865	2,990	2,851	3,313	12,019
Watauga	26,406	26,520	1,120	1,042	55,088
Wayne	39,654	39,375	20,397	23,831	123,257
Wilkes	31,472	32,701	2,273	2,018	68,464
Wilson	22,378	23,743	16,231	19,215	81,567
Yadkin	17,578	18,136	975	954	37,643
Yancey	8,457	8,776	261	218	17,712

Population estimates are from the bridged-race population estimates obtained from the National Center for Health Statistics available online at www.cdc.gov/nchs/nvss/bridged_race/data_documentation.htm#vintage2018.

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